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**The Characteristics of  
Business Owners Database**

By

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## I. INTRODUCTION

The growth in the number of Americans starting businesses over the past decade has spawned a renaissance in the study of entrepreneurship<sup>1</sup>. Evidence of the renewed interest is a growing literature on self-employment and business formation, growth, and failure.<sup>2</sup> This interest has led to the creation of new survey programs collecting more detailed information about business owners and their businesses (e.g., Bates, 1990a). These programs have in turn led to the development of microdatabases suitable for studying the characteristics of business owners and their relationship to business success and failure.

One of these surveys is the Characteristics of Business Owners (CBO) survey. It has two special features: 1) survey information about businesses and their owners; 2) large samples of female and minority business owners. Thus, researchers can use CBO data to study the relation between owner and businesses characteristics for segments of the population not well represented in other datasets. The data may be used at the Census Bureau's Center for Economic Studies (CES) research laboratory.<sup>3</sup>

This paper provides an overview of the 1982 and 1987 CBO data. It is designed to assist users of CBO data and to provide

guidelines for comparisons across the 1982 and 1987 datasets.<sup>4</sup> The information replaces documentation issued previously by the CES for use with the 1982 CBO data (Nucci, 1989).

Section II discusses the sample design and survey processing of the CBO program in relation to other Census Bureau minority statistics programs. Section III discusses changes in the business and owner populations sampled in 1982 and 1987, and differences in questionnaires and survey processing procedures. Section IV reviews problems associated with research designs involving firms with more than one owner. Section V outlines procedures for obtaining access to the database. The discussion throughout is brief, but various tables, endnotes, and appendices provide detailed information on the structure of the databases, information collected, population estimates, sample counts, and survey response rates.

## II. THE CHARACTERISTICS OF BUSINESS OWNERS PROGRAM

The CBO survey, as part of the Census Bureau's minority business program, traces its origin to the Survey of Minority Business Enterprises (SMOBE) introduced in 1969 (U.S. Bureau of the Census, 1971). In the late 1970's, demographic data on business owners' education, marital status, and previous work experience, were collected for a sample of women-owned businesses (U.S. Bureau of the Census, 1980). The CBO survey, available for the 1982 and

1987 economic census years, represents an expansion of coverage to the Asian and Other (Other), Black, and Hispanic firm populations and includes a Non-Hispanic, white male population as a reference group (U.S. Bureau of the Census, 1987). These Hispanic, Black, Other, female, and non-minority male businesses, called panels in the CBO database, are surveyed in roughly equal numbers.

CBO owner and business information are assembled from questionnaire responses of owners of sampled businesses and firm-level information drawn from the SMOBE and Women-Owned Business (WOB).<sup>5</sup> Three types of information are available from the CBO survey: 1) personal data about owners such as age, marital status, sex, and education; 2) information reflecting an owner's labor force experience and current involvement in her/his business such as previous managerial experience, age of business ownership, number of hours worked in current business, and capital investment in the business; and 3) information on the business itself such as net income, current assets, business age, and business survival. Appendix A provides lists of 1982 and 1987 CBO questions along with their respective response possibilities.

In addition to information obtained directly from the CBO questionnaire, data from Internal Revenue Service (IRS) business tax filings provide information on a CBO business' industry<sup>6</sup>, geographic classification<sup>7</sup>, sales, employment, and payroll.<sup>8</sup> The SMOBE and WOB surveys supplement the administrative tax records

data by identifying the race, sex, and in 1982, Hispanic ethnicity of business owners.

The CBO survey is a sample of businesses registered with the IRS as sole proprietorships, partnerships or small (sub-chapter S) corporations. Businesses are selected randomly within strata defined by panel, industry, geography, and in 1987, size of firm. For each selected business, all owners of the business are mailed a CBO questionnaire (see below for detail).<sup>9</sup>

Individual owners, up to ten for businesses with more than one owner, of a sampled business receive a CBO questionnaire through the mail. Owner response rates for the CBO program are about 70 to 80 percent, relatively low compared to rates of household surveys such as the Current Population Survey. This translates to a nonresponse rate of 20 to 30 percent (Table 1). This is in part attributable to a lag of about three years between year of business tax filing and receipt of a CBO questionnaire.<sup>10</sup> The high nonresponse rate is also due to the survey data collection methodology, a mailout/mailback approach. No field enumeration is performed following mailing of questionnaires.<sup>11</sup> Some respondents do not answer all questions on the survey instrument. This item nonresponse is about 5 percent for most items, but in a few cases, particularly net income, assets, and liability, response rates are low. Appendix B provides information on the extent and pattern of item response rates for each survey question.

The CBO survey questionnaire consists of a number of questions about owner and firm characteristics, each followed by a list of potential responses (see Appendix C for questionnaire facsimiles). Thus, CBO survey answers do not constitute continuous variables but consist of a small number of categories.<sup>12</sup> Some questions allow respondents to select an "Other" category and provide space for a brief description.

Selected questionnaire items depend upon other questions (e.g., business ownership by a respondent's close relative and respondent's work in relative's business). If a respondent answers that he/she does not have a close relative who is a business owner, then the respondent is asked to "skip" the question about her/his work in that business ("skip pattern" variables). Most questions on the CBO questionnaire allow a single answer from the available responses. However, a few variables permit respondents to choose more than one category ("multiple response" items e.g., source of equity used in starting a business). Listings of such variables for the 1982 and 1987 surveys are provided in Appendix D.<sup>13</sup>

### III. DIFFERENCES BETWEEN THE 1982 AND 1987 CBO SAMPLES

Approximately 126,000 business owners were mailed questionnaires for the 1982 and 1987 reference years. The number of respondents as a proportion of mailed owners declined in 1987 by about ten percent, from 80 percent in 1982 to 70 percent in 1987.

As seen in Table 1, the decline was disproportionately located in the minority panels (Hispanic, Other, Black).<sup>14</sup>

Collecting business owners of the same firm yields the number of firms in the CBO dataset. As seen in Table 2, the number of firms in the 1987 sample declined from 114,000 to 90,000. The decline in the number of firms was the product of a change in sample allocation procedures in 1987--larger firms are disproportionately allocated to the 1987 sample. This means that fewer small firms were included in the 1987 CBO sample than in the 1982 sample. Since most large firms are more likely to be organized as corporations, the number of corporations has increased in the 1987 sample over the corresponding number in the 1982 sample.

Researchers using microdata from CBO survey files at CES should be aware that changes in the coverage of businesses and sample allocation differences complicate comparisons of 1982 and 1987 CBO data. For example, the increase of 3,495,902 in the number of owners over the period 1982 to 1987 obtained from comparisons of population estimates based on CBO survey data files becomes an increase of 4,285,100 owners when the 1982 data are adjusted for changes in the 1987 survey design.<sup>15</sup> The unadjusted comparison, which includes firms with less than 500 dollars in receipts in 1982 that are not covered in the 1987 owner population, understates owner population growth over the period 1982-1987. The CES has prepared tables of adjusted 1982-1987 firm and owner

comparisons, in order to provide researchers with an estimate of the magnitude of change in the 1982 and 1987 populations. (See Appendix E.)

Changes in the CBO questionnaire between 1982 and 1987 include the addition of items such as immigrant status in 1987, the rewording of questions (e.g. education), and the exclusion of items requested in 1982 (e.g., business age). Appendix D presents CBO questionnaire and SMOBE/WOB variables and contains annotations of 1982 and 1987 differences.<sup>16</sup>

Information from the Internal Revenue Service and Social Security Administration administrative records, edited and tabulated in the SMOBE survey program, is the source of industry, geography, race, Hispanic ethnicity, sex, sales, wages and employment data for the 1982 and 1987 CBO databases (U.S. Bureau of the Census, 1985, 1986a, 1986b, 1986c, 1990a, 1990b, 1991a, 1991b, 1991c).<sup>17</sup>

Differences in the treatment of the 1987 data and the 1982 data are: (1) excluding firms with less than 500 hundred dollars in receipts from 1987 data, (2) capturing race/ethnicity detail information from the firm in 1987 rather than from the owner in 1982, (3) imputing race and Hispanic ethnicity for non-response cases in 1987, and (4) excluding white Hispanics from the Asian and Other panel.<sup>18</sup>

Finally, users must exercise caution in combining CBO questionnaire survey response data and information drawn from



SMOBE. Because respondents receive CBO questionnaires approximately three years after filing their tax returns, it is possible that they record responses for years other than that of the SMOBE data. For example, the net income reported may be income for the year the questionnaire was received instead of the year requested on the questionnaire, and consequently, the net income response and reference year sales data may not be consistent with each other.

#### IV. USING THE CBO FILE AS MULTIPLE OWNER FIRM FILE

The CBO program collects information at the business owner level and the CBO database structure reflects this (i.e. each record is a business owner). However, many data users have treated the dataset as a firm dataset (Bates, 1989a, 1989b, 1989c, 1990b; Boden 1990; Grown; 1991). Since many CBO businesses have more than one owner, it is not possible to perform this latter analysis without summarizing (selecting) owner values to the firm level. This is so because, for multiple owner firms, information about the business such as sales are duplicated across common owners while CBO questionnaire responses of each of the common owners are often

distinct. Thus, no single procedure for attributing owner responses and traits to a business is likely to satisfy the requirements of all researchers. What follows are some examples of approaches followed by researchers who have worked with the 1982 CBO dataset.

One approach, followed by the SMOBE program, assigns sex, race, and Hispanic ethnicity values to a firm based on the majority of its owners' traits.<sup>19</sup> Bates (1989a) selects a single owner from responding owners of multiple owner firms and assigns the selected owner's characteristics to the firm. Ando (1988) and Boden (1990) limit their analysis to single owner firms, predominately proprietorships. Grown (1991) assigns ratio or interval-level values to owners' responses to categorical variables and selects an average value from owners of the same business.

Although CES does not endorse a particular procedure, it has created a firm dataset for both 1982 and 1987 in order to assist users. Thus, CES has available two versions of the CBO datafile. (See Appendix F for database dictionaries.) One is an owner file and contains all owners who were mailed a questionnaire for the reference year, plus SMOBE/WOB information. The CBO questionnaire information appears in these owner datasets for respondents.<sup>20</sup> The second version is a file of firms. These datasets contain SMOBE/WOB information and data on the number of owners (mailed and responding) per firm.<sup>21</sup> The two files can be related through use of a variable (CFN) appearing on both datasets.

## V. ACCESS TO THE CBO DATABASES

The Bureau of the Census collects CBO survey data under Title 13, United States Code. Access to the microdata is restricted in order to protect the confidentiality of survey respondents. The CES at the Census Bureau maintains the 1982 and 1987 CBO databases.

The procedure for obtaining access to this database begins with a proposal outlining the research plan, including the model and data to be used, hypothesis tests and funding possibilities. This allows CES to ascertain the feasibility of the research and the type of data analysis required. There are two principal ways of accessing the CBO dataset. One involves a contract with CES for tabulations. The other requires a visit to CES's research laboratory in Washington. In the latter case the research plan must include some demonstrable benefits to the Census Bureau's data programs. In either case, interested parties should direct correspondence to Chief, Center for Economic Studies, U.S. Bureau of the Census, Room 1587, FB-3, Washington, D.C. 20233-6300.

## Endnotes

1. Devine (1992), Evans and Jovanovic (1989), Holmes and Schmidt (1990), Jovanovic (1982), Khilstrom and Laffont (1979), and Pakes and Erickson (1987) are examples of recent theoretical work on entrepreneurship.

2. Aronson (1991), Bates and Nucci (1989), Becker (1984), Blau (1987), Boden (1990), Borjas (1987), Brown, Hamilton, and Medoff (1990), Devine (1991), Dunne, Roberts, and Samuelson (1986), Evans, (1987), Evans and Leighton (1989), Maxim (1992, McGuckin and Nucci (1991), Meyer (1990), Phillips and Kirchhoff (1989), Reynolds and Miller (1989), and Steinmetz and Wright (1989) are examples of recent empirical work on self-employment, business formation, growth, and failure. The book by Aronson (1991) is a good overview of recent work on self-employment and contains extensive references to literature not available in the general literature.

3. The CBO microdata file contains confidential information from respondents and are not available as a public use dataset. The CES is investigating the feasibility of and interest in the development of a public use dataset for the 1982 and 1987 CBO surveys. Direct interest or inquiries to: Robert H. McGuckin, Chief; Center for Economic Studies; Room 1587 Building 3; Bureau of the Census; Washington D.C. 20233.

4. Matching the 1982 and 1987 CBO samples on business ID does not isolate 1982 businesses surviving to 1987 because the number of businesses appearing in both samples is very small. Survivor information on businesses in the 1982 CBO sample frame has been obtained from a match of these businesses on firm ID to the 1987 SMOBE/WOB firm population universe. This provides an explicit longitudinal component to the 1982 sample, and widens the range of research topics that can be addressed.

5. Information in addition to that contained in the basic CBO dataset developed for CES researchers is available for both years. These include owner name and address, SMOBE/WOB and CBO editing/imputation flags, and a write-in description for selected items on both the 1982 and 1987 questionnaires. This information is available under special agreement with the CES.

6. The source of SIC information for proprietorships without payroll is the principal industrial activity coding performed by the IRS from business income tax returns. The source of SIC information for payroll businesses are either economic census forms or Social Security Administration and IRS information from the Census Bureau Standard Statistical Establishment List. These classifications conform to the 1972 Standard Industrial Classification (SIC) for both the 1982 and 1987 CBO datasets.

7. The source of geographic classification is the IRS mailing address for proprietorships without payroll. The source of classification for businesses with payroll is economic census forms or the mailing address available from the Census Bureau Standard Statistical Establishment List. The state and county coding is Federal Information Processing Standard (FIPS). A question on business location appears on the 1987 CBO questionnaire.

8. The Census Bureau obtains information on business' employment and payroll from quarterly income tax withholdings and Social Security withholding payments available from its Standard Statistical Establishment List.

Information on receipts is obtained from annual business income tax returns. Employment and payroll are imputed for businesses filing an income tax form with positive cost of labor, but without matching payroll information.

9. The CBO sampling frame excludes non-resident U.S. business owners and businesses with more than 10 partners or shareholders in 1982. The 1987 frame excludes non-resident U.S. business owners and businesses with sales less than \$500. Businesses with more than 10 owners are included in 1987, although only 10 owners were included in the sample. Thus, population estimates obtained from the CBO databases are not equal to those reported in IRS Statistics of Income Proprietorship, Partnership and Corporation publications.

10. The CBO sample is drawn from IRS tax returns, available in the summer of the year following the sample reference year. SMOBE/WOB Social Security Administration race and sex coding of these files occurs over the next year. Responses to detailed Hispanic ethnicity and Asian and Other detail, are collected over the following year in the SMOBE/WOB surveys.

11. A telephone followup of 1987 CBO minority nonrespondents was performed during the Summer of 1991 in an attempt to reduce the high nonresponse in these panels. Nonresponse for these panels was reduced by less than one percentage point through this effort.

12. The CBO questionnaire variables are frequently called "categorical" variables, concepts measured at the nominal or ordinal level. It is not possible to apply standard econometric techniques to such variables. Users of the CBO wishing to employ standard econometric techniques must recode each variable to a ratio or interval level of measurement or create dummy variables from the different values of a CBO variable.

13. A code of 'M' or 'MM' is used to denote a skipped question in the Center CBO datasets. Multiple response variables contain a variable for each possible answer. Researchers interested in using responses not recoded for the skip pattern of variables can use similarly numbered variables with an 'O' prefix; .e.g o2b ( an 'I' prefix precedes CBO question numbers for both 1982 and 1987). Multiple response variables in 1982 were not properly keyed during the Bureau's survey operations and were recoded at the CES. The original values for these variables are stored for the 1982 dataset.

14. Population estimates of firm and owner characteristics are calculated from responding cases with weights adjusted to account for this nonresponse. No imputations are prepared for item non-responses from responding owners. This procedure is different from that employed by many establishment surveys at the Census Bureau where non-responding establishment data items are imputed. The decline in response in 1987 was due in part to changes in survey processing over the two periods. Business owners in the 1982 CBO sample were respondents to a special SMOBE/WOB sample, while 1987 CBO owners included both respondents and non-respondents from the SMOBE/WOB program.

15. The adjusted increase between the 1982 and 1987 population estimates represents "upper bounds" for this figure. Businesses, otherwise eligible for sampling in 1982, were excluded from the 1982 CBO if they had more than nine owners. All eligible businesses, regardless of number of owners, were included in the 1987 CBO.

16. The CES staff hopes to provide recode programs for moving between differing variable names across the two datasets and will provide in the future a limited capability for recoding variables measured differently in

1987 than in 1982. In the meantime, these tasks remain the researcher's responsibility.

16. Editing of 1987 SMOBE/WOB sales, wages, and employment was performed against measures of central location drawn from the complete population of sole proprietorships, partnerships, and sub-chapter S corporations. 1982 editing measures were computed from the women and minority sub-population. The effect of this change on data values is unknown.

18. The Asian and Other panel has a category for other race (see the values of variables FRAC (1982) and fers\_api (1987) of Appendix A). Most individuals selecting the other value for the Asian and Other race grouping appear to be white Hispanic individuals, self-selecting out of white, Black, and Asian and Other race categories. The 1982 CBO includes these individuals in the Other panel, as well as the Hispanic panel. The 1987 CBO excludes these individuals from the Other panel, while retaining them in the Hispanic panel. This approach conforms with the race coding employed in 1990 decennial census of population.

19. Ties and non-minority situations are resolved using precedence rules for race and sex. The ranking from high to low for race is Black, Asian, Hispanic white and non-Hispanic white, and for sex, female and male. For example, if a business has two Black owners and two White owners, it is classified as Black.

Note that in 1987, detailed ethnicity and race information is not available for individual owners of businesses in either the SMOBE/WOB or the CBO programs.

20. Responding CBO owners are identified by variables "resp" (' ', 'I') and "reported" ('R') for the 1982 and 1987 CBO owner datasets, respectively.

21. The variable 'FRESP' for both the 1982 and 1987 CBO firm files indicates whether all owners of a firm are respondents (value of 1); no owner is a respondent (value, 3); or some owners, but not all, are respondents (value, 2).

Table 1. Comparison of the 1982 and 1987 CBO Owner Samples.

Part A. The 1982 Characteristics of Business Owners Sample  
Owners for Hispanic, Asian, Black, Women,  
and Non-Hispanic White Businesses

	Sample	Response	Response Rate	Universe Estimate	
Hispanic	25,454	19,081	74.96	19.1	262,808
Asian	25,439	20,163	79.26	20.2	281,489
Black	25,235	18,868	74.77	18.9	325,461
Female	25,076	20,806	82.97	20.8	3,160,031
Non-Hispanic White Male	25,044	21,127	84.36	21.1	7,582,910
Total	126,248	100,045	79.24	100.0	11,260,739*

Part B. The 1987 Characteristics of Business Owners Sample  
Owners for Hispanic, Non-Hispanic Asian, Non-Hispanic Black,  
Non-Hispanic White Female, and Non-Hispanic White Male Businesses

			Universe		Response Rate	Estimate
Sample			Response			
Hispanic	24,678	16,074	64.90	18.2	432,457	
Non-Hispanic Asian	24,664	16,292	66.06	18.5	405,902	
Non-Hispanic Black	25,203	16,154	64.10	18.3	426,348	
Non-Hispanic White Female	26,475	19,954	75.36	22.6	3,872,896	
Non-Hispanic White Male	26,620	19,637	73.76	22.3	9,619,038	
Total	127,640	88,111	69.03	100.0	14,756,641	

\*This is not the simple sum of estimates in the panels because of double counting. For examples, the same women can appear in both Hispanic, Asian, and Black panels.

Table 2. Comparison of the 1982 and 1987 CBO Firm Samples.

Part A. The 1982 Characteristics of Business Owners Sample Number of Businesses by Legal Form of Organization					
	Sample	Response*	Response Rate		Universe Estimate**
Corporations	3,284	3,066	93.36	3.2	325,816
Sole Proprietors	105,883	83,356	78.72	88.1	9,625,496
Partnerships	5,204	4,716	90.62	5.0	502,012
Total	114,371	94,578	82.69	100.0	9,338,523***

Part B. The 1987 Characteristics of Business Owners Sample Number of Businesses by Legal Form of Organization					
	Sample	Response*	Response Rate		Universe Estimate
Corporations	19,954	15,915	79.76	24.4	924,172
Sole Proprietors	62,021	43,398	69.97	66.4	11,480,208
Partnerships	8,238	6,019	73.06	9.2	634,804
Total	90,213	65,332	72.42	100.0	13,039,182

\*A firm is considered to be a responding firm if at least one (of possibly ten) owners responds to the 1982 (1987) CBO questionnaire. \*\*Universe estimates are calculated from response adjusted firm weights. These data include 320 firms, 656 firms, and 404 firms classified as corporations, sole proprietorships, and partnerships, respectively, which did not respond to the 1982 CBO questionnaire but were used in the calculation of adjusted firm weights.

\*\*\*This is not the simple sum of estimates in the panels because of double counting. For examples, the same women can appear in both Hispanic, Asian, and Black panels.



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Appendix A. 1982 and 1987 Owner and Firm Database Codebooks

	Dataset	Pages
1.	1982 CBO Survey Variables	22-29
2.	1982 IRS/SMOBE Variables	30-32
3.	1987 CBO Survey Variables	33-41
4.	1987 IRS/SMOBE Variables	42-44

Table 1. Questionnaire Variable Values

Variable Name	Variable Value	Value Label
i1	1986 owner of same 1982 business	
	'1'	= 1986 owner of same 1982 business: Yes
	'2'	= 1986 owner of same 1982 business: No
	' '	= 1986 owner of same 1982 business: Item Nonresponse
i2a	1982 Firm Operating in 1986	
	'1'	= 1982 Firm Operating in 1986: Yes
	'2'	= 1982 Firm Operating in 1986: No
	' ','0'	= 1982 Firm Operating in 1986: Item Nonresponse
i2b	Why 1982 Firm Not Operating	
	'1'	= Why 1982 Firm Not Operating: Profit
	'2'	= Why 1982 Firm Not Operating: Financing
	'3'	= Why 1982 Firm Not Operating: Personal
	'4'	= Why 1982 Firm Not Operating: Other
	' ','0'	= Why 1982 Firm Not Operating: Item Nonresponse
'M'	= Not Eligible for Response	
i3	Owner Age	
	'1'	= Owner Age: Less Than 25
	'2'	= Owner Age: 25 - 34
	'3'	= Owner Age: 35 - 44
	'4'	= Owner Age: 45 - 54
	'5'	= Owner Age: 55 - 64
	'6'	= Owner Age: 65 or Over
	' '	= Owner Age: Item Nonresponse
i4	Marital Status	
	'1'	= Marital Status: Never Married
	'2'	= Marital Status: Married
	'3'	= Marital Status: Divorced or Separated
	'4'	= Marital Status: Widow/Widower
	' '	= Marital Status: Item Nonresponse
i5	Gender	
	'1'	= Gender: Male
	'2'	= Gender: Female
	' '	= Gender: Item Nonresponse
i6a	Veteran Status	
	' '	= Veteran Status: Item Nonresponse
	'1'	= Veteran Status: Yes
	'2'	= Veteran Status: No

i6ba1      Veteran: Before 25 July, 1947  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba2      Veteran: 26 July, 1947 - 26 June, 1950  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba3      Veteran: 27 June, 1950 - 31 January, 1955  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba4      Veteran: 1 February, 1955 - 4 August, 1964  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba5      Veteran: 5 August, 1964 - 7 May, 1975  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba6      Veteran: After 7 May, 1975  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba0      1982 CBO All Response  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i6ba00     Veteran: Item Nonresponse  
              '1'        =    Veteran Status: Yes  
              '2'        =    Veteran Status: Value Nonresponse  
              'M'        =    Not Eligible for Response

i7           Education                values '01' - '18'

i7a         Education:High School or Less                values '01' - '12'

i7b         Education: One Year College or More        values '1' - '6'

i8           Business Education  
              '1'        =    Business Education: Yes  
              '2'        =    Business Education: No  
              ' '        =    Business Education: Item Nonresponse

i9a         Family Business Experience  
              '1'        =    Family Business Experience: Yes  
              '2'        =    Family Business Experience: No  
              ' '        =    Family Business Experience: Item Nonresponse

i9b        Work with Family Business Experience  
           '1'        =    Work with Family Business Experience: Yes  
           '2'        =    Work with Family Business Experience: No  
           ' ','0'    =    Work with Family Business Experience: Item  
 Nonresponse  
           'M'        =    Not Eligible for Response

i10a       Employment Experience  
           '1'        =    Employment Experience: None  
           '2'        =    Employment Experience: Less Than 2 Years  
           '3'        =    Employment Experience: 2-5 Years  
           '4'        =    Employment Experience: 6-9 Years  
           '5'        =    Employment Experience: 10-19 Years  
           '6'        =    Employment Experience: 20 Years or More  
           ' ','0'    =    Employment Experience: Item Nonresponse

i10b       Managerial Experience  
           '1'        =    Managerial Experience: None  
           '2'        =    Managerial Experience: Less Than 2 Years  
           '3'        =    Managerial Experience: 2-5 Years  
           '4'        =    Managerial Experience: 6-9 Years  
           '5'        =    Managerial Experience: 10-19 Years  
           '6'        =    Managerial Experience: 20 Years or More  
           '7'        =    Managerial Experience: Not Sure  
           ' ','0'    =    Managerial Experience: Item Nonresponse

i11        Business Ownership Experience  
           '1'        =    Business Ownership Experience: Yes  
           '2'        =    Business Ownership Experience: No  
           ' '        =    Business Ownership Experience: Item  
                      Nonresponse

i12        Business in Private Residence  
           '1'        =    Business in Private Residence: Yes  
           '2'        =    Business in Private Residence: No  
           ' '        =    Business in Private Residence: Item  
 Nonresponse

i13        Work in Business (Hours per Week        =  
           '01'       =    Work in Business (Hours per Week): None  
           '02'       =    Work in Business (Hours per Week): 1-9 Hrs  
           '03'       =    Work in Business (Hours per Week): 10-19 Hrs  
           '04'       =    Work in Business (Hours per Week): 20-29 Hrs  
           '05'       =    Work in Business (Hours per Week): 30-39 Hrs  
           '06'       =    Work in Business (Hours per Week): 40 Hrs  
           '07'       =    Work in Business (Hours per Week): 41-49 Hrs  
           '08'       =    Work in Business (Hours per Week): 50-59 Hrs  
           '09'       =    Work in Business (Hours per Week): 60-69 Hrs  
           '10'       =    Work in Business (Hours per Week): 70 or More  
                      Hrs  
           ' '        =    Work in Business (Hours per Week): Item  
                      Nonresponse

i14        Income from Business (per cent)  
           '1'        =    Income from Business (%): None  
           '2'        =    Income from Business (%): 1-9  
           '3'        =    Income from Business (%): 10-24  
           '4'        =    Income from Business (%): 25-49  
           '5'        =    Income from Business (%): 50-74  
           '6'        =    Income from Business (%): 75-99  
           '7'        =    Income from Business (%): 100

```

' '      =   Income from Business (%): Item Nonresponse

i15      Year Acquire Business
'1'      =   Year Acquire Business: Before 1960
'2'      =   Year Acquire Business: 1960-1969
'3'      =   Year Acquire Business: 1970-1975
'4'      =   Year Acquire Business: 1976-1979
'5'      =   Year Acquire Business: 1980-1981
'6'      =   Year Acquire Business: 1982
' '      =   Year Acquire Business: Item Nonresponse

i16      Original Business Founder
'1'      =   Original Business Founder: Yes
'2'      =   Original Business Founder: No
' '      =   Original Business Founder: Item Nonresponse

i17      Year Business Established
'1'      =   Year Business Established: Before 1960
'2'      =   Year Business Established: 1960-1969
'3'      =   Year Business Established: 1970-1975
'4'      =   Year Business Established: 1976-1979
'5'      =   Year Business Established: 1980-1981
'6'      =   Year Business Established: 1982
'7'      =   Year Business Established: Dont Know
' '      =   Year Business Established: Item Nonresponse

i18      How Acquire Business
'1'      =   How Acquire Business: Purchased
'2'      =   How Acquire Business: Inherited
'3'      =   How Acquire Business: Gift, etc
'4'      =   How Acquire Business: Other
'5'      =   How Acquire Business: Other
' '      =   How Acquire Business: Item Nonresponse

```



i19a Business Startup Capital

- '1' = Business Startup Capital: None
- '2' = Business Startup Capital: \$1-\$4,999
- '3' = Business Startup Capital: \$5,000-\$9,999
- '4' = Business Startup Capital: \$10,000-\$24,999
- '5' = Business Startup Capital: \$25,000-\$49,999
- '6' = Business Startup Capital: \$50,000-\$99,999
- '7' = Business Startup Capital: \$100,000-\$249,999
- '8' = Business Startup Capital: \$250,000-\$999,999
- '9' = Business Startup Capital: \$1,000,000 or More
- ' ','0' = Business Startup Capital: Item Nonresponse

i19b Business Startup Debt

- '01' = Business Startup Debt: None
- '02' = Business Startup Debt: 1-10
- '03' = Business Startup Debt: 11-20
- '04' = Business Startup Debt: 21-30
- '05' = Business Startup Debt: 31-40
- '06' = Business Startup Debt: 41-50
- '07' = Business Startup Debt: 51-60
- '08' = Business Startup Debt: 61-70
- '09' = Business Startup Debt: 71-80
- '10' = Business Startup Debt: 81-90
- '11' = Business Startup Debt: 91-100
- ' ','00' = Business Startup Debt: Item Nonresponse
- 'M ' = Not Eligible for Response

i19ca1 Family Source of Debt

- '1' = Source of Debt
- ' ' = Source of Debt: Value Nonresponse
- 'M' = Not Eligible for Response

i19ca2 Friends Source of Debt

- '1' = Source of Debt
- ' ' = Source of Debt: Value Nonresponse
- 'M' = Not Eligible for Response

i19ca3 Government Source of Debt

- '1' = Source of Debt
- ' ' = Source of Debt: Value Nonresponse
- 'M' = Not Eligible for Response

i19ca4 Former Owner Source of Debt

- '1' = Source of Debt
- ' ' = Source of Debt: Value Nonresponse
- 'M' = Not Eligible for Response

i19ca5 Bank Source of Debt

- '1' = Source of Debt
- ' ' = Source of Debt: Value Nonresponse
- 'M' = Not Eligible for Response

i19ca6 Other Source of Debt

- '1' = Source of Debt
- ' ' = Source of Debt: Value Nonresponse
- 'M' = Not Eligible for Response

i19ca0 1982 CBO All Response  
'1' = Source of Debt  
' ' = Source of Debt: Value Nonresponse  
'M' = Not Eligible for Response  
i19ca00 Source of Debt: Item Nonresponse  
'1' = Source of Debt  
' ' = Source of Debt: Value Nonresponse  
'M' = Not Eligible for Response  
  
i20a1 No Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a2 Family Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a3 Friends Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a4 Government Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a5 Venture Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a6 Former Owner Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a7 Bank Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a8 Other Source of Equity  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a0 1982 CBO All Response  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse  
i20a00 Source of Equity: Item Nonresponse  
'1' = Source of Equity  
' ' = Source of Equity: Value Nonresponse

i21 Firm Net Income Before Taxes

'01'	=	Firm Net Income: Under \$5,000
'02'	=	Firm Net Income: \$5,000-\$9,999
'03'	=	Firm Net Income: \$10,000-\$19,999
'04'	=	Firm Net Income: \$20,000-\$24,999
'05'	=	Firm Net Income: \$25,000-\$29,999
'06'	=	Firm Net Income: \$30,000-\$49,999
'07'	=	Firm Net Income: \$50,000-\$74,999
'08'	=	Firm Net Income: \$75,000-\$99,999
'09'	=	Firm Net Income: \$100,000-\$249,999
'10'	=	Firm Net Income: \$250,000-\$999,999
'11'	=	Firm Net Income: \$1,000,000-\$2,499,999
'12'	=	Firm Net Income: Over \$2,500,00
'13'	=	Firm Net Income: Under \$(5,000)
'14'	=	Firm Net Income: (\$5,000)-(\$9,999)
'15'	=	Firm Net Income: (\$10,000)-(\$24,999)
'16'	=	Firm Net Income: Over (\$25,000)
' '	=	Firm Net Income: Item Nonresponse

i22 Female Labor Force Participation (per cent)

'1'	=	Female Labor Force (%): No Employees
'2'	=	Female Labor Force (%): None
'3'	=	Female Labor Force (%): 1-9
'4'	=	Female Labor Force (%): 10-24
'5'	=	Female Labor Force (%): 25-49
'6'	=	Female Labor Force (%): 50-74
'7'	=	Female Labor Force (%): 75-100
'8'	=	Female Labor Force (%): Dont Know
' ','0'	=	Female Labor Force (%): Item Nonresponse

i23 Non-Hispanic White Labor Force Participation (per cent)

'1'	=	Non-Minority Labor Force (%): No Employees
'2'	=	Non-Minority Labor Force (%): 0-25
'3'	=	Non-Minority Labor Force (%): 25-50
'4'	=	Non-Minority Labor Force (%): 51-75
'5'	=	Non-Minority Labor Force (%): 76-90
'6'	=	Non-Minority Labor Force (%): 91-99
'7'	=	Non-Minority Labor Force (%): 100
'8'	=	Non-Minority Labor Force (%): Dont Know
' ','0'	=	Non-Minority Labor Force (%): Item

Nonresponse

i24 Customer Base White (per cent)

'1'	=	Customer Base White (%): 0-25
'2'	=	Customer Base White (%): 26-50
'3'	=	Customer Base White (%): 51-75
'4'	=	Customer Base White (%): 76-90
'5'	=	Customer Base White (%): 91-99
'6'	=	Customer Base White (%): 100
'7'	=	Customer Base White (%): Dont Know
' '	=	Customer Base White (%): Item Nonresponse

i25 Exports (per cent of Sales)

'1'	=	Exports (% of Sales): None
'2'	=	Exports (% of Sales): 1-9
'3'	=	Exports (% of Sales): 10-24
'4'	=	Exports (% of Sales): 25-49
'5'	=	Exports (% of Sales): 50-74
'6'	=	Exports (% of Sales): 75-99
'7'	=	Exports (% of Sales): 100

'8'	=	Exports (% of Sales): Dont Know
' '	=	Exports (% of Sales): Item Nonresponse

Table 2. Selected IRS and SMOBE Variables.

Variable Name	Variable Value	Value Label
------------------	-------------------	----------------

NUMERIC VARIABLES

emp	1982 Employment	Continuous
apr	1982 Annual Payroll	Continuous
rec	1982 Sales/Receipts	Continuous

ALPHANUMERIC VARIABLES

ind	Major Industry Grouping
	'0' = Agricultural services, etc.
	'1' = Mining
	'2' = Construction
	'3' = Manufacturing
	'4' = Transportation and public utilities
	'5' = Wholesale trade
	'6' = Retail trade
	'7' = Finance, insurance, and real estate
	'8' = Selected services
	'9' = Industries not classified
panel	Major Ethnicity Grouping
	'1' = Hispanic-owned businesses
	'2' = Other minority-owned businesses
	'3' = Black-owned businesses
	'4' = Women-owned businesses
	'5' = Nonminority male-owned businesses
recsz	Receipt Size Class
	'0' = Less than \$5,000
	'1' = \$5,000 to \$9,999
	'2' = \$10,000 to \$24,999
	'3' = \$25,000 to \$49,999
	'4' = \$50,000 to \$99,999
	'5' = \$100,000 to \$199,999
	'6' = \$200,000 to \$249,999
	'7' = \$250,000 to \$499,999
	'8' = \$500,000 to \$999,999
	'9' = \$1,000,000 or more

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empsz      Employment Size Class
          '1' =   No employees
          '2' =   1 to 4 employees
          '3' =   5 to 9 employees
          '4' =  10 to 19 employees
          '5' =  20 to 49 employees
          '6' =  50 to 99 employees
          '7' = 100 employees or more
emplr      Employer(2)-Non-Employer(1)
          '1' =   Nonemployer: March 12 Employment is Zero and
                  Annual Payroll is Less Than $2,500
          '2' =   Employer:Employment Greater Than Zero or Annual
                  Payroll is Greater Than $2,500
lfo        Legal Form of Organization
          '1' =   Individual proprietorships
          '2' =   Partnerships
          '0' =   Corporations
resp       Case Response Type
          ' ' =   Response to Questionnaire
          'I' =   Nonresponse to Questionnaire and on Response
'N' =      Nonresponse to Questionnaire*
Code (Hispanic)
          ' ' =   Nonhispanic
          '2' =   Cuban
          '3' =   Mexican
          '4' =   Puerto Rican
          '5' =   Latin American
          '6' =   European Spanish
          '7' =   Other Spanish Origen or Culture
          frac    Firm Race Code (Other)
          ' ' =   White
'03' =      Aleutians
Eskimo
Indian
          '04' =
          '05' =   American
          '06' =   Asian Indian
          '07' =   Chinese
          '08' =   Japanese
          '09' =   Korean
          '10' =
=   Vietnamese
Asian
          '11' =   Other
          '12' =   Filipino
          '13' =   Hawaiian
          '14' =   Other Pacific Islander
          '15' =   Other: Hispanic Race Designation when White
or Black not Applicable
fsex       Firm Gender Code
          '1' =   Male
          '2' =   Female
fadm       Firm Race Code (Black)
          ' ' =   Not Black
          '2' =   Black
oeth       Owner Ethnicity Code (Hispanic)
          ' ' =   Nonhispanic Space
          '1' =   Nonhispanic 01
          '2' =   Cuban
          '3' =   Mexican
          '4' =   Puerto Rican
          '5' =   Latin American
          '6' =   European Spanish
          '7' =   Other Spanish Origin or Culture
orac       Owner Race Code (Other)
          ' ' =   White Space

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'01' = White 01
'02' = Black
'03' = Aleutians
'04' = Eskimo
'05' = American Indian
'06' = Asian Indian
'07' = Chinese
'08' = Japanese
'09' = Korean
'10' = Vietnamese
'11' = Other Asian
'12' = Filipino
'13' = Hawaiian
'14' = Other Pacific Islander
'15' = Other: Hispanic Race Designation when White
or Black not Applicable
osex Owner Gender Code
' ' = Male Space
'1' = Male 1
'2' = Female

```

\*The value 'N' is case nonresponse not appearing on the CBO response files. It appears on the CBO universe files for those cases not responding and not included in the CBO response files.

Table 3. Questionnaire Variable Values

Variable Name	Variable Value	Value Label
i1	Owner Age	
	'1'	= Owner Age: Less Than 25
	'2'	= Owner Age: 25 - 34
	'3'	= Owner Age: 35 - 44
	'4'	= Owner Age: 45 - 54
	'5'	= Owner Age: 55 - 64
	'6'	= Owner Age: 65 or Over
	' '	= Owner Age: Item Nonresponse
i2	Marital Status	
	'1'	= Marital Status: Never Married
	'2'	= Marital Status: Married
	'3'	= Marital Status: Divorced or Separated
	'4'	= Marital Status: Widow/Widower
	' '	= Marital Status: Item Nonresponse
i3	Immigrant Status	
	'1'	= Immigrant Status: Yes
	'2'	= Immigrant Status: No
	' '	= Immigrant Status: Item Nonresponse
i4a	Veteran Status	
	'1'	= Veteran Status: No
	'2'	= Veteran Status: Yes
	'3'	= Veteran Status: Yes, 6 Months or Less
	' '	= Veteran Status: Item Nonresponse
i4b	Vietnam Veteran: 5 August, 1964 - 7 May, 1975	
	'1'	= Veteran Status: Yes
	'2'	= Veteran Status: Value Nonresponse
	' '	= Veteran Status: Item Nonresponse
	'M'	= Not Eligible for Response
i4c	Disabled Veteran:	
	'1'	= Veteran Status: Yes
	'2'	= Veteran Status: Value Nonresponse
	' '	= Veteran Status: Item Nonresponse
	'M'	= Not Eligible for Response
i5	Highest Level of Education	
	'1'	= Elementary School
	'2'	= High School - Did not Graduate
	'3'	= High School Graduate or Equivalent (GED)
	'4'	= College - Did not Graduate
	'5'	= College Graduate (Bachelor's Degree)
	'6'	= Graduate School
	' '	= Item Nonresponse
i6	Post-High School Area of Concentration	
	'1'	= Concentration: Liberal Arts
	'2'	= Concentration: Business
	'3'	= Concentration: Science
	'4'	= Concentration: Professional
	'5'	= Concentration: Engineering
	'6'	= Concentration: Other College



'7' = Concentration: Vocational  
 '8' = Concentration: Other Non-College  
 ' ' = Concentration: Item Nonresponse

i7a 1991 owner of same 1987 business  
 '1' = 1991 owner of same 1987 business: Yes  
 '2' = 1991 owner of same 1987 business: No  
 ' ' = 1991 owner of same 1987 business: Item  
       Nonresponse

i7b 1987 Firm Operating in 1991 Under Different Ownership  
 '1' = Firm Under Different Ownership in 1991: Yes  
 '2' = Firm Under Different Ownership in 1991: No  
 '3' = Firm Under Different Ownership in 1991: Don't  
       Know  
 ' ' = Firm Under Different Ownership in 1991: Item  
 Nonresponse  
 'M' = Not Eligible for Response

i7c Why 1987 Firm Under Different Ownership  
 '1' = Why 1987 Firm Not Operating: Sold  
 '2' = Why 1987 Firm Not Operating: Merged  
 '3' = Why 1987 Firm Not Operating: Acquired  
 '4' = Why 1987 Firm Not Operating: Reformed  
 '5' = Why 1987 Firm Not Operating: Other  
 ' ' = Why 1987 Firm Not Operating: Item Nonresponse  
 'M' = Not Eligible for Response

i8a Family Business Experience  
 '1' = Family Business Experience: Yes  
 '2' = Family Business Experience: No  
 ' ' = Family Business Experience: Item Nonresponse

i8b Work with Family Business Experience  
 '1' = Work with Family Business Experience: Yes  
 '2' = Work with Family Business Experience: No  
 ' ','0' = Work with Family Business Experience: Item  
 Nonresponse  
 'M' = Not Eligible for Response

i9a      Prior Employment Experience (Years)

'1'	=	Employment Experience: None
'2'	=	Employment Experience: Less Than 2 Years
'3'	=	Employment Experience: 2-5 Years
'4'	=	Employment Experience: 6-9 Years
'5'	=	Employment Experience: 10-19 Years
'6'	=	Employment Experience: 20 Years or More
' ','0'	=	Employment Experience: Item Nonresponse

  

i9b      Type of Prior Employment Experience

'1'	=	Prior Experience: Manageral/Executive
'2'	=	Prior Experience: White Collar (Supervisory)
'3'	=	Prior Experience: White Collar (Non-Supervisory)
'4'	=	Prior Experience: Blue Collar (Supervisory)
'5'	=	Prior Experience: Blue Collar (Non-Supervisory)
'6'	=	Prior Experience: Other
' '	=	Prior Experience: Item Nonresponse

  

i10a     Household Income (1987)

' 1'	=	Household Income: Under \$5,000
' 2'	=	Household Income: \$5,000-\$9,999
' 3'	=	Household Income: \$10,000-\$14,999
' 4'	=	Household Income: \$15,000-\$24,999
' 5'	=	Household Income: \$25,000-\$34,999
' 6'	=	Household Income: \$35,000-\$49,999
' 7'	=	Household Income: \$50,000-\$74,999
' 8'	=	Household Income: \$75,000-\$99,999
' 9'	=	Household Income: \$100,000-\$149,999
'10'	=	Household Income: \$150,000 or More
' '	=	Household Income: Item Nonresponse

  

i10b     Income from Business (per cent)

'1'	=	Income from Business (%): None
'2'	=	Income from Business (%): 1-9
'3'	=	Income from Business (%): 10-24
'4'	=	Income from Business (%): 25-49
'5'	=	Income from Business (%): 50-74
'6'	=	Income from Business (%): 75-99
'7'	=	Income from Business (%): 100
' '	=	Income from Business (%): Item Nonresponse

  

i11      Own Other Business (Before 1987)

'1'	=	Own Other Business (Before 1987): Yes
'2'	=	Own Other Business (Before 1987): No
' '	=	Own Other Business (Before 1987): Item Nonresponse

i12        Business in Private Residence  
           '1'        =    Business in Private Residence: Yes  
           '2'        =    Business in Private Residence: No  
           ' '        =    Business in Private Residence: Item  
           Nonresponse

113        ZIP Code of Business (Physical Location)

i14a       Work in Business (Months in 1987)  
           '01'       =    Work in Business (Months in 1987): None  
           '02'       =    Work in Business (Months in 1987): 1-3 Months  
           '03'       =    Work in Business (Months in 1987): 4-6 Months  
           '04'       =    Work in Business (Months in 1987): 7-9 Months  
           '05'       =    Work in Business (Months in 1987): 10-11  
           Months  
           '06'       =    Work in Business (Months in 1987): 12 Months  
           ' '        =    Work in Business (Months in 1987): Item  
           Nonresponse

i14b       Work in Business (Hours per Week)  
           '01'       =    Work in Business (Hours per Week): None  
           '02'       =    Work in Business (Hours per Week): 1-9 Hrs  
           '03'       =    Work in Business (Hours per Week): 10-19 Hrs  
           '04'       =    Work in Business (Hours per Week): 20-29 Hrs  
           '05'       =    Work in Business (Hours per Week): 30-39 Hrs  
           '06'       =    Work in Business (Hours per Week): 40 Hrs  
           '07'       =    Work in Business (Hours per Week): 41-49 Hrs  
           '08'       =    Work in Business (Hours per Week): 50-59 Hrs  
           '09'       =    Work in Business (Hours per Week): 60-69 Hrs  
           '10'       =    Work in Business (Hours per Week): 70 or More  
           Hrs  
           ' '        =    Work in Business (Hours per Week): Item  
           Nonresponse  
           'MM'       =    Work in Business (Hours per Week): Not Eligible  
           For Response

i15        How Acquire Business  
           '1'        =    How Acquire Business: Started (Founder)  
           '2'        =    How Acquire Business: Purchased  
           '3'        =    How Acquire Business: Inherited  
           '4'        =    How Acquire Business: Without Personal  
           Investment  
           '5'        =    How Acquire Business: Other  
           ' '        =    How Acquire Business: Item Nonresponse

i16        Years of Business Ownership  
           '1'        =    Years of Ownership: 25 or more  
           '2'        =    Years of Ownership: 20-24  
           '3'        =    Years of Ownership: 15-19  
           '4'        =    Years of Ownership: 10-14  
           '5'        =    Years of Ownership: 5-9  
           '6'        =    Years of Ownership: 3-4  
           '7'        =    Years of Ownership: 2  
           '8'        =    Years of Ownership: 1 or Less  
           ' '        =    Years of Ownership: Item Nonresponse

i17a        Business Startup Capital  
           '1'        =    Business Startup Capital: None  
           '2'        =    Business Startup Capital: \$1-\$4,999  
           '3'        =    Business Startup Capital: \$5,000-\$9,999  
           '4'        =    Business Startup Capital: \$10,000-\$24,999  
           '5'        =    Business Startup Capital: \$25,000-\$49,999  
           '6'        =    Business Startup Capital: \$50,000-\$99,999  
           '7'        =    Business Startup Capital: \$100,000-\$249,999  
           '8'        =    Business Startup Capital: \$250,000-\$999,999  
           '9'        =    Business Startup Capital: \$1,000,000 or More  
           ' ','0'    =    Business Startup Capital: Item Nonresponse

i17b        Business Startup Debt  
           '1'        =    Business Startup Debt: None  
           '2'        =    Business Startup Debt: 1-9  
           '3'        =    Business Startup Debt: 10-24  
           '4'        =    Business Startup Debt: 25-49  
           '5'        =    Business Startup Debt: 50-74  
           '6'        =    Business Startup Debt: 75-99  
           '7'        =    Business Startup Debt: 100  
           ' '        =    Business Startup Debt: Item Nonresponse  
           'M'        =    Not Eligible for Response

i17c1        Spouse Source of Debt  
           '1'        =    Source of Debt  
           ' '        =    Source of Debt: Value Nonresponse  
           'M'        =    Not Eligible for Response

ii17c2        Other Family Source of Debt  
           '2'        =    Source of Debt  
           ' '        =    Source of Debt: Value Nonresponse  
           'M'        =    Not Eligible for Response

iii17c3        Friends Source of Debt  
           '3'        =    Source of Debt  
           ' '        =    Source of Debt: Value Nonresponse  
           'M'        =    Not Eligible for Response

iiii17c4        Personal Credit Card Source of Debt  
           '4'        =    Source of Debt  
           ' '        =    Source of Debt: Value Nonresponse  
           'M'        =    Not Eligible for Response

ii17c5      Refinanced Home Source of Debt  
              '5'            =    Source of Debt  
              ' '            =    Source of Debt: Value Nonresponse  
              'M'            =    Not Eligible for Response  
 ii17c6      Former Owner Source of Debt  
              '6'            =    Source of Debt  
              ' '            =    Source of Debt: Value Nonresponse  
              'M'            =    Not Eligible for Response  
 ii17c7      Commercial Bank Loan Source of Debt  
              '7'            =    Source of Debt  
              ' '            =    Source of Debt: Value Nonresponse  
              'M'            =    Not Eligible for Response  
 ii17c8      Other Type Loan Source of Debt  
              '8'            =    Source of Debt  
              ' '            =    Source of Debt: Value Nonresponse  
              'M'            =    Not Eligible for Response  
 ii17c9      Federal, State, Local Government Source of Debt  
              '9'            =    Source of Debt  
              ' '            =    Source of Debt: Value Nonresponse  
              'M'            =    Not Eligible for Response  
 ii17c10     Other Source of Debt  
              '10'           =    Source of Debt  
              ' '            =    Source of Debt: Value Nonresponse  
              'MM'           =    Not Eligible for Response  
  
 i181        No Source of Equity  
              '1'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse  
 i182        Family Source of Equity  
              '2'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse  
 i183        Friends Source of Equity  
              '3'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse  
 i184        Partners/Investors Source of Equity  
              '4'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse  
 i185        Former Owner Source of Equity  
              '5'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse  
 i186        Self Source of Equity  
              '6'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse  
 i187        Other Source of Equity  
              '7'            =    Source of Equity  
              ' '            =    Source of Equity: Value Nonresponse

i19a      Firm Assets

'1'	=	Firm Assets: Under \$10,000
'2'	=	Firm Assets: \$10,000-\$24,999
'3'	=	Firm Assets: \$25,000-\$49,999
'4'	=	Firm Assets: \$50,000-\$74,999
'5'	=	Firm Assets: \$75,000-\$99,999
'6'	=	Firm Assets: \$100,000-\$249,999
'7'	=	Firm Assets: \$250,000 or More

i19b      Firm Liabilities

' 8'	=	Firm Liabilities: Under \$10,000
' 9'	=	Firm Liabilities: \$10,000-\$24,999
'10'	=	Firm Liabilities: \$25,000-\$49,999
'11'	=	Firm Liabilities: \$50,000-\$74,999
'12'	=	Firm Liabilities: \$75,000-\$99,999
'13'	=	Firm Liabilities: \$100,000-\$249,999
'14'	=	Firm Liabilities: \$250,000 or More

i20      Firm Net Income Before Taxes

' 1'	=	Firm Net Income: Under \$10,000
' 2'	=	Firm Net Income: \$10,000-\$24,999
' 3'	=	Firm Net Income: \$25,000-\$49,999
' 4'	=	Firm Net Income: \$50,000-\$74,999
' 5'	=	Firm Net Income: \$75,000-\$99,999
' 6'	=	Firm Net Income: \$100,000-\$249,999
' 7'	=	Firm Net Income: \$250,000-\$999,999
' 8'	=	Firm Net Income: \$1,000,000-\$2,499,999
' 9'	=	Firm Net Income: \$2,500,000 or More
'10'	=	Firm Net Income: Under (\$10,000)
'11'	=	Firm Net Income: (\$10,000)-(\$24,999)
'12'	=	Firm Net Income: (\$25,000)-(\$49,999)
'13'	=	Firm Net Income: (\$50,000)-(\$74,999)
'14'	=	Firm Net Income: (\$75,000)-(\$99,999)
'15'	=	Firm Net Income: (\$100,000)-(\$249,999)
'16'	=	Firm Net Income: (\$250,000)-(\$999,999)
'17'	=	Firm Net Income: (\$1,000,000)-(\$2,499,999)
'18'	=	Firm Net Income: (\$2,500,000) or More
' '	=	Firm Net Income: Item Nonresponse

i21      Female Labor Force Participation (per cent)

'1'	=	Female Labor Force (%): No Employees
'2'	=	Female Labor Force (%): None
'3'	=	Female Labor Force (%): 1-9
'4'	=	Female Labor Force (%): 10-24
'5'	=	Female Labor Force (%): 25-49
'6'	=	Female Labor Force (%): 50-74
'7'	=	Female Labor Force (%): 75-100
'8'	=	Female Labor Force (%): Dont Know
' ','0'	=	Female Labor Force (%): Item Nonresponse

i22 Non-Hispanic White Labor Force Participation (per cent)  
 '1' = Non-Minority Labor Force (%): No Employees  
 '2' = Non-Minority Labor Force (%): 0-25  
 '3' = Non-Minority Labor Force (%): 25-50  
 '4' = Non-Minority Labor Force (%): 51-75  
 '5' = Non-Minority Labor Force (%): 76-90  
 '6' = Non-Minority Labor Force (%): 91-99  
 '7' = Non-Minority Labor Force (%): 100  
 '8' = Non-Minority Labor Force (%): Dont Know  
 ' ','0' = Non-Minority Labor Force (%): Item  
 Nonresponse

i23 Customer Base White (per cent)  
 '1' = Customer Base White (%): 0-25  
 '2' = Customer Base White (%): 26-50  
 '3' = Customer Base White (%): 51-75  
 '4' = Customer Base White (%): 76-90  
 '5' = Customer Base White (%): 91-99  
 '6' = Customer Base White (%): 100  
 '7' = Customer Base White (%): Dont Know  
 ' ' = Customer Base White (%): Item Nonresponse

i24 Exports (per cent of Sales)  
 '1' = Exports (% of Sales): None  
 '2' = Exports (% of Sales): 1-9  
 '3' = Exports (% of Sales): 10-24  
 '4' = Exports (% of Sales): 25-49  
 '5' = Exports (% of Sales): 50-74  
 '6' = Exports (% of Sales): 75-99  
 '7' = Exports (% of Sales): 100  
 '8' = Exports (% of Sales): Dont Know  
 ' ' = Exports (% of Sales): Item Nonresponse

i25 Business a Franchise  
 '1' = Business a Franchise: Yes  
 '2' = Business a Franchise: No  
 ' ' = Business a Franchise: Item  
 Nonresponse

i26a Percentage of Sales to Federal Government  
 'nn.n' = Percent  
 ' ' = Item Nonresponse

i26b Percentage of Sales to State Government  
 'nn.n' = Percent  
 ' ' = Item Nonresponse

i26c Percentage of Sales to Local Government  
 'nn.n' = Percent  
 ' ' = Item Nonresponse

i26d Percentage of Sales to Other Businesses  
 'nn.n' = Percent  
 ' ' = Item Nonresponse

i26e      Percentage of Sales to Individuals  
           'nn.n' = Percent  
           ' ' = Item Nonresponse

i26f      Percentage of Sales to All Others  
           'nn.n' = Percent  
           ' ' = Item Nonresponse

i27a1     No Assistance in Business Startup  
           '1' = Source of Assistance  
           ' ' = Item Nonresponse

i27a2     Federal Government Assistance in Business Startup  
           '2' = Source of Assistance  
           ' ' = Item Nonresponse

i27a3     State/Local Government Assistance in Business Startup  
           '3' = Source of Assistance  
           ' ' = Item Nonresponse

i27a4     College/University Assistance in Business Startup  
           '4' = Source of Assistance  
           ' ' = Item Nonresponse

i27a5     Other Business Assistance in Business Startup  
           '5' = Source of Assistance  
           ' ' = Item Nonresponse

i27a6     Other Assistance in Business Startup  
           '6' = Source of Assistance  
           ' ' = Item Nonresponse

i27b1     Management/Technical Assistance in Business Startup  
           '1' = Source of Assistance  
           ' ' = Item Nonresponse  
           'M' = Not Eligible for Response

i27b2     Obtaining a Contract Assistance in Business Startup  
           '2' = Source of Assistance  
           ' ' = Item Nonresponse  
           'M' = Not Eligible for Response

i27b3     Obtaining a Loan Assistance in Business Startup  
           '3' = Source of Assistance  
           ' ' = Item Nonresponse  
           'M' = Not Eligible for Response

i27b4     Obtaining Bonding Assistance in Business Startup  
           '4' = Source of Assistance  
           ' ' = Item Nonresponse  
           'M' = Not Eligible for Response

i27b5     Other Assistance in Business Startup  
           '5' = Source of Assistance  
           ' ' = Item Nonresponse  
           'M' = Not Eligible for Response

i28        Employment Disability  
           '1'        =    Employment Disability: Yes  
           '2'        =    Employment Disability: No  
           ' '        =    Employment Disability: Item  
                       Nonresponse

Table 4. Selected IRS and SMOBE Variables.

Variable Name	Variable Value	Value Label
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#### NUMERIC VARIABLES



acemp        1987 Employment  
              Continous

acap         1987 Annual Payroll  
              Continous

acsrl        1987 Sales/Receipts  
              Continous

#### ALPHANUMERIC VARIABLES

pdiv         Major Industry Grouping  
              '0' =    Agricultural services, etc.  
              '1' =    Mining  
              '2' =    Construction  
              '3' =    Manufacturing  
              '4' =    Transportation and public utilities  
              '5' =    Wholesale trade  
              '6' =    Retail trade  
              '7' =    Finance, insurance, and real estate  
              '8' =    Selected services  
              '9' =    Industries not classified

cbo\_fram     Major Ethnicity Grouping  
              'H' =    Hispanic-owned businesses  
              'A' =    Non-Hispanic Other minority-owned businesses  
              'B' =    Non-Hispanic Black-owned businesses  
              'W' =    Non-Hispanic, White Women-owned businesses  
              'M' =    Non-Hispanic, White male-owned businesses

recsz        Receipt Size Class  
              '0' =    Less than \$5,000  
              '1' =    \$5,000 to \$9,999  
              '2' =    \$10,000 to \$24,999  
              '3' =    \$25,000 to \$49,999  
              '4' =    \$50,000 to \$99,999  
              '5' =    \$100,000 to \$199,999  
              '6' =    \$200,000 to \$249,999  
              '7' =    \$250,000 to \$499,999  
              '8' =    \$500,000 to \$999,999  
              '9' =    \$1,000,000 or more

```

empsz      Employment Size Class
          '1' = No employees
          '2' = 1 to 4 employees
          '3' = 5 to 9 employees
          '4' = 10 to 19 employees
          '5' = 20 to 49 employees
          '6' = 50 to 99 employees
          '7' = 100 employees or more
emplr      Employer(2)-Non-Employer(1)
          '1' = Nonemployer: March 12 Employment is Zero and
                Annual Payroll is Less Than $2,500
          '2' = Employer:Employment Greater Than Zero or Annual
                Payroll is Greater Than $2,500
lfo        Legal Form of Organization
          '1' = Individual proprietorships
          '2' = Partnerships
          '0' = Corporations

reported   Case Response Type
          'R' = Response to Questionnaire
          ' ' = Nonresponse to Questionnaire*
fers_his   Firm Ethnicity Code (Hispanic)
          ' ' = Nonhispanic
          '2' = Cuban
          '3' = Mexican
          '4' = Puerto Rican
          '5' = Latin American
          '6' = European Spanish
          '7' = Other Spanish Origen or Culture
fers_na    Firm Race Code (Other)
          ' ' = White
          '03' = Aleutians
          '04' = Eskimo
          '05' = American Indian
fers_api   Firm Race Code (Other)
          '06' = Asian Indian
          '07' = Chinese
          '08' = Japanese
          '09' = Korean
          '10' = Vietnamese
          '11' = Filipino
          '12' = Hawaiian
          '13' = Other Pacific Islander&Other Asian
          '15'*= Other: Hispanic Race Designation when White or
                Black not Applicable
fers_sex   Firm Gender Code
          '1' = Male
          '2' = Female
          '9' = Male
fers_blk   Firm Race Code (Black)
          ' ' = Not Black
          '2' = Black
ssa_sex    Owner Gender Code
          ' ' = Male Space
          '1' = Male 1
          '2' = Female
ssa_race   Owner Race Code
          '1'
          '2'

```

\*The value '15' was not used in tabulating SMOBE or CBO businesses/owners by race in 1987. This value was used in 1982 SMOBE/CBO tabulations.



Appendix B. CBO Percent Owner Response by Panel

	Dataset	Pages
Table 1.	1982 Owner File	46-47
Table 2.	1987 Owner File	48-50

Table 1. Per Cent Response by CBO Panel

Response to Individual Questions by Panel	Major 1982 CBO Ethnicity Grouping				
	Hispanic	Asian	Black	Women	Male
Total Response	100.00	100.00	100.00	100.00	100.00
1986 owner of same 1982 business	96.66	96.63	95.33	95.56	95.55
1982 Firm Operating in 1986	94.23	94.42	92.25	93.55	93.82
Why 1982 Firm Not Operating	28.13	26.24	31.68	30.20	24.85
Owner Age	95.22	94.79	93.38	95.09	94.70
Marital Status	96.35	96.19	95.53	95.71	95.27
Gender	97.97	97.61	98.02	97.44	96.87
Veteran Status	96.96	96.60	96.13	96.00	95.86
Veteran: Period of Duty	95.75	95.74	94.27	95.35	94.14
Education	94.92	93.76	95.12	95.57	95.37
Education: High School or Less	55.11	34.31	50.20	44.62	42.98
Education: One Year College or More	39.81	59.45	44.92	50.95	52.39
Business Education	95.57	95.29	93.83	95.11	94.59
Family Business Experience	96.73	96.31	95.12	95.76	95.57
Work with Family Business Experience	28.10	32.44	20.53	39.45	38.00
Employment Experience	92.21	91.82	89.25	92.81	92.72
Managerial Experience	91.53	90.54	89.69	92.42	92.14
Business Ownership					

Experience	96.07	95.97	94.57	95.28	95.07
Business in Private Residence	94.57	94.69	92.18	93.78	94.04
Work in Business (Hours per Week)	94.93	95.01	92.75	93.82	94.09
Income from Business (per cent)	92.64	92.92	89.63	91.84	93.19
Year Acquire Business	91.02	91.89	86.36	89.50	92.19
Original Business Founder	94.50	94.27	91.27	93.75	94.32
Year Business Established	91.88	92.41	87.76	90.65	92.56
How Acquire Business	92.56	92.94	88.75	91.83	93.37
Business Startup Capital	93.05	92.81	88.71	92.03	92.78
Business Startup Debt	68.47	73.20	59.88	58.80	69.56
Source of Debt: By Type	94.70	94.67	91.27	93.48	94.10
Source of Equity: By Type	87.98	87.87	84.41	88.12	89.15
Firm Net Income Before Taxes	80.00	83.74	68.10	82.21	85.87
Female Labor Force Participation (per ce	94.60	94.08	95.74	95.19	93.84
Non-Hispanic White Labor Force Participa	94.70	94.16	95.77	95.16	93.86
Customer Base White (per cent)	90.78	91.32	85.58	90.15	91.53
Exports (per cent of Sales)	93.70	93.51	90.58	92.75	93.78

Table 2. Per Cent Response by CBO Panel.

Response to Individual Question	1987 CBO Panel				
	Hispanic	Non-Hispanic Other	Non-Hispanic Black	Non-Hispanic White Female	Non-Hispanic White Male
Total Response	100.00	100.00	100.00	100.00	100.00
Age as of December 31, 1987	96.82	97.13	96.29	96.93	96.97
Marital Status					
December 31, 1987 Country Birth	97.49	97.55	97.21	97.16	97.16
(Other than U.S.)	96.18	95.80	96.34	96.54	96.40
Veteran Status	91.03	91.23	90.50	92.88	94.43
Vietnam Veteran	91.00	91.78	90.05	91.39	91.03
Disabled Veteran	92.39	92.09	91.53	92.92	94.00
Highest Level of Education	92.56	93.29	92.32	93.95	94.09
Post High School Concentration	52.71	71.27	57.69	63.67	63.35
Still Own 1987 Business	97.08	97.27	95.68	96.57	96.95
Business Operating Under Different Owner	95.76	96.17	93.56	95.61	96.08
Change in Business Ownership	95.12	95.76	93.10	95.13	95.55
Relative Own Business	95.53	94.60	94.62	95.75	96.15
Work for Relatives Business	94.18	92.59	93.14	93.55	94.27
Work Experience (yrs) Prior to 87 Business	94.09	94.32	92.18	94.58	95.29
Prior Work Experience	92.25	92.99	91.05	93.40	93.85
1987 Household Income	93.07	94.25	91.75	92.35	93.61
% Household Income from Business	92.04	92.43	89.79	91.78	93.38

Own Previous Business	95.46	95.84	94.26	95.07	95.71
87 Business Operated from Home	93.36	94.08	91.81	93.57	94.25
Business ZIP Code	90.52	92.52	89.14	93.43	93.63
Months in 87 Managing/Working Business					
Business Hrs/wk in 87	95.27	95.45	93.27	94.84	95.82
Managing/Working Business	94.95	95.32	93.21	94.65	95.63
How Acquire Business Ownership	93.13	93.96	91.19	93.54	94.54
Ownership Tenure as of Dec. 31,1987	93.62	95.00	91.48	94.12	95.40
Capital at Startup	94.32	94.78	91.62	93.51	94.56
% Capital Borrowed	94.06	94.39	91.74	93.71	94.56
Source of Debt	94.20	94.67	92.06	94.02	94.76
Source of Equity	90.26	90.97	88.45	91.45	92.03
Business Assets in 87	82.64	83.27	79.91	81.02	81.22
Business Liabilities in 87	60.01	67.13	58.97	70.79	73.03
Business Net Income in 1987	78.46	83.93	70.66	82.96	84.56
%Employees Female	92.76	92.14	93.01	92.67	92.27
%Employees Non-Minority	92.35	91.82	92.36	92.30	92.04
%Customers Non-Minority	92.09	93.35	89.32	92.90	93.87
%Sales Exports	93.82	94.55	92.14	94.36	95.44
Business a Franchise	92.95	93.97	90.73	94.18	95.14
%Sales to Government etc.	77.32	82.05	70.90	85.06	86.46
Assistance in Business Start Up - Source	92.00	92.30	89.62	92.36	92.75



Assistance in Business Start Up - Type	91.99	92.21	89.66	92.40	92.80
Disability Precludes Employment	93.18	92.38	92.05	93.96	94.74

Appendix C. 1982 and 1987 CBO Questionnaire Facsimiles.

The appendix contains the appendices D and C of the Characteristics of Business Owners Survey.

Appendix D. Comparisons of 1982 and 1987 CBO Variable Values

Table	Pages
1. 1982 and 1987 CBO Questionnaire Items	57-58
2. 1982 and 1987 CBO Variables	59-59
3. 1982 CBO Skip Pattern, Multiple Response	60-60
4. 1987 CBO Skip Pattern, Multiple Response	61-61
5. 1982 and 1987 CBO Variables -- Not Recoded	62-62

Table 1. 1982 and 1987 CBO Questionnaire Items -- Cross-Reference List by Question Item Number

Questionnaire		Item Number	
Item	1982	1987	
Assets	NA	19A	
Assistance in Business			
Startup by Source	NA	27A	
Assistance in Business			
by Type	NA	27B	
Business Age	17	NA	
Business Operating			
in 19nn*	2A	7B	
Business Original Founder*	16	15	
Capital at Startup	19A	17A	
Capital at Startup			
Borrowed*	19B	17B	
%Customers Non-Minority	24	23	
Disability	NA	28	
Education*	7	5	
%Employees Female*	22	21	
%Employees Non-minority*	23	22	
Franchise	NA	25	
Household Income	NA	10A	
Home Business	12	12	
Immigrant	NA	3	
%Income (Family) from Business	NA	10B	
%Income (Individual)			
from Business	14	NA	
Liabilities	NA	19B	
Marital Status	4	2	
Owner Age	3	1	
Ownership How Acquired*	18	15	
Ownership Age*	15	16	
Ownership Change*	2B	7C	
Owner of Business in			
19nn	1	7A	
Owner of Other			
Business	11	11	
Post High School			
Business Training	8	NA	
Post High School			
Concentration	NA	6	
Profit*	21	20	
Relative Own Business	9A	8A	
Sex	5	NA	
%Sales Exported	25	24	
%Sales To :			
Federal	NA	26A	
State	NA	26B	
Local	NA	26C	
Other Business	NA	26D	
Individual	NA	26E	
Other	NA	26F	
Source of Capital:*			
Bank Loan	19C5	17C7	

Credit Card (own)	NA	17C4
Family	19C1	17C2
Former Owner	19C4	17C6
Friends	19C2	17C3
Government	19C3	17C9
Home Refinance	NA	17C5
Other Loan	NA	17C8
Spouse	NA	17C1
Other	19C6	17C10
Source of Equity:*		
No Equity	201	181
Commercial Bank	207	NA
Family	202	182
Former Owner	206	185
Friends	203	183
Government	204	NA
Partners/Co-Investors	NA	184
Self	NA	186
Venture Capital	205	NA
Other	208	187
Veterans Status:*		
A Veteran	6A	4A
Vietnam	6B	4B
Korea	6B	NA
WW II	6B	NA
Disabled	NA	4C
Work (Current) by Months	NA	14A
Work (Current) in Hours/Week*	13	14B
Work (Prior) by Type	NA	9B
Work (Prior) Experience		
in Years	10A	9A
Work (Prior) Experience,		
Managerial in Years	10B	NA
Work (Prior) in Business of		
Relative	9B	8B
ZIP Code of Business	NA	13

\*The phrasing of the question or the available response categories differed on the 1982 and 1987 questionnaires.

Table 2. 1982 and 1987 CBO Variables -- Cross-Reference List by Variable Name

Variable	Variable Name	
	1982	1987
County*	CTY	CTYGEO
Employer/Non-Employer	EMPLR	EMPLYR
Employment	EMP	ACEMP
Employment Size Class	EMPSZ	EMPSZ
Employer Flag	EMPLR	EMPLR
Duplication Flags		
Black*	TABBLK	TABBLK
Hispanic Ethnicity*	TABHIS	TABHIS
Other Race*	TABOTH	TABOTH
Women*	TABWOM	TABOWM
Firm Race/Sex/Ethnicity:		
Black Race	FADM	FERS_BLA
Hispanic Ethnicity	FETH	FERS_HIS
Other Race*	FRAC	FERS_NA
		FERS_API
Sex*	FSEX	FERS_SEX
Firm Response+	FRESP	FRESP
Industry Sector	IND	PDIV
Minority Classification	PANEL	CBO_FRAM
Owner Race/Sex/Ethnicity:		
Black Race	FADM	SSA_RACE
Hispanic Ethnicity	OETH	NA
Other Race	ORAC	SSA_RACE
Sex*	OSEX	SSA_SEX
Owner Response	RESP	REPORTED
Common Owners+	RESPNO	RESPNO
Common Owners, Responding+	RESPON	RESPON
Common Owners, Nonresponding+	NORESPON	NORESPON
Panel*	PANEL	CBO_FRAM
Place*	PLACE	PLGEO
Random Group	RDGRP	RD
Receipts Size Class	RECSZ	RECSZ
SIC*	SIC	SIC
State*	ST	STGEO
Sales*	SALES	ACSR1
SMOBE/WOB Response	NA	HASOURCE
Wages	APR	ACAP
Weight, Owner	WGTCBO	WGTTOT
Weight, Adjusted Owner	WGTOWN	OWNWGT
Weight, Adjusted Firm*	WGTFRM	FRMWGT
ZIP	ZIP	ZIP5

\*Different values were used in 1982 and 1987 CBO or due to survey processing changes, the variables have different meanings.

+Available on Firm File Only.

Table 3. 1982 CBO Variables -- Skip Pattern or Multiple Response

Part A. Skip Patterns

Variable		Variable Related To	
Ownership Change	(2B)	Owner of Business in 19nn	(2A)
Veteran During ...	(6B)	Veteran Status	(6A)
Work (Prior) in Business		Relative Own Business	(9A)
of Relative	(9B)		
Business Age	(17)	Business Original Founder	(15)
%Capital at Startup			
Borrowed	(19B)	Capital at Startup	(19A)
Source of Capital	(19C)		
Source of Capital	(19C)	Capital at Startup	
		Borrowed	(19B)

Part B. Multiple Response

Variable Name	
Veteran During ...	(6B)
Source of Capital	(19C)
Source of Equity	(20)

Table 4. 1987 CBO Variables -- Skip Pattern or Multiple Response

Part A. Skip Patterns

Variable	Variable Related To
Assistance in Business Startup by Type (27B)	Assistance in Business Startup by Source (27A)
Business Ownership Change (7B)	Owner of Business in 19nn (7A)
Capital at Startup Borrowed (17B)	Capital at Startup (17A)
Ownership Change (7C)	Owner of Business in 19nn (7A)
Ownership Change (7C)	Business Ownership Change (7B)
Veteran, Vietnam Era (4B)	Veteran Status (4A)
Veteran (4C)	Disabled
Work (Current) in Hours/Week* (14B)	Work (Current) by Months (14A)
Work (Prior) in Business of Relative (8B)	Relative Own Business (8A)
Work (Prior) Type (9B)	Work (Prior) Experience in Years (9A)
Source of Capital (17C)	Capital at Startup (17A)
Source of Capital (17C)	Capital at Startup Borrowed (17B)

Part B. Multiple Response

Variable Name
Source of Capital (17C)
Source of Equity (18)
Assistance in Business Startup, by Source (27A)
Assistance in Business Startup, by Type (27B)



Table 5. 1982 and 1987 CBO Questionnaire Items --  
Original (Not Recoded) Data

Questionnaire	Item Number	
Item	1982	1987
Business Operating in 19nn*	NRC	7B
Assistance in Business Startup by Type	NA	27Bn
Capital at Startup Borrowed	19B	17B
%Employees Female*	22	NA
%Employees Non-minority*	23	NA
Ownership Change*	2B	7C
Source of Capital	19Cn	17Cn
Source of Equity:*	20n	NRC
Veteran During ...	6Bn	4B
Veteran Disabled	NA	4C
Work (Current) in Hours/Week*	NA	14B
Work (Prior) by Type	NA	9B
Work (Prior) In Business of Relative	9B	8B

NA = Not Available  
NRC = No Recode Performed

Appendix E. 1982 CBO Data Adjusted to 1987 CBO Coverage

Table	Page
1. Owner and Business Differences, by Panel	64-64
2. Number of Owners, by Panel	65-65
3. Number of Firms, by Panel	66-66
4. Adjustment Procedure for 1982 CBO (SAS code)	67-67
5. Adjustment Procedure for 1987 CBO (SAS code)	68-68

Table 1. Comparing Population Estimates from the 1982 and 1987 Characteristics of Business Owners Surveys

Part A. Owners for Hispanic, Non-Hispanic Asian, Non-Hispanic Black, Non-Hispanic White Female, and Non-Hispanic White Male Businesses

	Estimates		Difference	
	1982	1987	Actual	Percent
Hispanic	249,054	432,457	183,403	73.6
Non-Hispanic Asian	221,196	405,902	184,706	83.5
Non-Hispanic Black	292,474	426,348	133,874	45.8
Non-Hispanic White Female	2,612,348	3,872,896	1,260,548	48.3
Non-Hispanic White Male	7,089,836	9,619,038	2,529,202	35.7
Total	10,464,907	14,756,641	4,285,100	41.0

Part B. Number of Businesses by Legal Form of Organization

	Estimates		Difference	
	1982	1987	Actual	Percent
Corporations	311,991	924,172	612,181	196.2
Sole Proprietors	8,541,833	11,480,208	2,938,375	34.4
Partnerships	479,536	634,804	155,268	32.4
Total	9,341,359	13,039,182	3,697,823	39.6

Table 2. Comparison of the 1982 and 1987 CBO Owner Samples  
1982 Sample Adjusted to the 1987 Sample

Part A. The 1982 Characteristics of Business Owners Sample  
Owners for Hispanic, Non-Hispanic Asian, Non-Hispanic Black,  
Non-Hispanic White Female, and Non-Hispanic White Male

		Businesses			Universe
	Sample	Response	Response Rate		Estimate
Hispanic	24,085	18,057	74.97	20.5	249,054
Non-Hispanic Asian	20,076	16,100	80.20	18.3	221,196
Non-Hispanic Black	22,605	16,391	72.51	18.7	292,474
Non-Hispanic White Female	20,287	17,015	83.87	19.4	2,612,348
Non-Hispanic White Male	23,449	19,775	84.33	22.5	7,089,836
Total	110,502	87,878	79.53	100.0	10,464,907

Part B. The 1987 Characteristics of Business Owners Sample  
Owners for Hispanic, Non-Hispanic Asian, Non-Hispanic Black,  
Non-Hispanic White Female, and Non-Hispanic White Male

		Businesses			Universe
	Sample	Response	Response Rate		Estimate
Hispanic	24,678	16,074	64.90	18.2	432,457
Non-Hispanic Asian	24,664	16,292	66.06	18.5	405,902
Non-Hispanic Black	25,203	16,154	64.10	18.3	426,348
Non-Hispanic White Female	26,475	19,954	75.36	22.6	3,872,896
Non-Hispanic White Male	26,620	19,637	73.76	22.3	9,619,038
Total	127,640	88,111	69.03	100.0	14,756,641

Table 3. Comparison of the 1982 and 1987 CBO Firm Samples.  
1982 Sample Adjusted to the 1987 Sample

Part A. The 1982 Characteristics of Business Owners Sample  
Number of Businesses by Legal Form of Organization

	Sample	Response*	Response Rate	Universe Estimate**
Corporations	3,096	2,884	93.15	319,991
Sole Proprietors	91,580	72,326	78.97	8,541,833
Partnerships	4,739	4,311	90.97	479,536
Total	99,415	79,567	80.03	9,341,359

Part B. The 1987 Characteristics of Business Owners Sample  
Number of Businesses by Legal Form of Organization

	Sample	Response*	Response Rate	Universe Estimate
Corporations	19,954	15,915	79.76	924,172
Sole Proprietors	62,021	43,398	69.97	11,480,208
Partnerships	8,238	6,019	73.06	634,804
Total	90,213	65,332	72.42	13,039,182

\*A firm is considered to be a responding firm if at least one (of possibly ten) owners responds to the 1982 (1987) CBO questionnaire. \*\*Universe estimates are calculated from response adjusted firm weights. These data include 320 firms, 656 firms, and 404 firms classified as corporations, sole proprietorships, and partnerships, respectively, which did not respond to the 1982 CBO questionnaire but were used in the calculation of adjusted firm weights.

We adjust the 1982 population to the 1987 population by deleting those businesses with less than 500 dollars in receipts in 1982 and by deleting those observations which are "duplicates" of other businesses; e.g., minority females appearing in the female panel as well as in the Black, Asian and Other, and Hispanic panels (Tables 1, 2, and 3).

The following SAS code unduplicates the 1982 CBO owner and firm file on race, sex, and Hispanic ethnicity variables and deletes observation with sales less than 500 dollars.

```
if REC =< 500 then delete;
select (PANEL) ;          /* unduplication rules */
  when (1) ;
  when (2) if (TABHIS='1') then delete ;
  when (3) if (TABHIS='1') | (TABOTH='1') then delete ;
  when (4) if (TABHIS='1') | (TABOTH='1') | (TABBLK='1')
    then delete ;
  when (5) ;
end ;
```

It is not possible to adjust the 1982 sample to the 1987 basis for three reasons: 1) the exclusion of Hispanic persons from the 1987 Asian and Other panel; 2) the inclusion of an unknown number of partnerships and subchapters S corporations with more than 10 owners; 3) the exclusion of those businesses with less than five hundred dollars in receipts to the 1987 sample. However, it is possible to adjust the 1987 CBO to the 1982 CBO panel definitions. One can add minority females to the Non-Hispanic, white female panels and create a female panel similar to the 1982 one. Further, it is possible to add Hispanic Blacks to the Non-Hispanic Black panel, etc. In survey terms, the 1987 CBO panels Hispanic, Non-Hispanic Black, Non-Hispanic Other, Non-Hispanic White Females, and Non-Hispanic White Males, are strata, i.e., firms can appear in only one of the panels. The 1982 CBO panels Hispanic, Black, Other, Females, and Non-Hispanic White Males, are not strata in that a firm (and their owners) can appear in more than one of these panels.

The following SAS code duplicates the 1987 CBO owner and firm file on race, sex, and Hispanic ethnicity variables.

```

output file;
select (cbo_fram) ;          /* duplication rules */
  when (H) if (TABOTH='1') | (TABBLK='1') | (TABWOM = '1')
then do;
    if (TABWOM = '1') then do;
      cbo_fram = 'W';
      output file;
    end;
    if (TABOTH = '1') then do;
      cbo_fram = 'A';
      output file;
    end;
    if (TABBLK = '1') then do;
      cbo_fram = 'B';
      output file;
    end;
    delete;
  end;
  when (B) if (TABWOM = '1'|TABOTH = '1') then do;
    if (TABWOM = '1') then do;
      cbo_fram = 'W';
      output file;
    end;
    if (TABOTH = '1') then do;
      cbo_fram = 'A';
      output file;
    end;
    delete;
  end;
  when (A) if (TABBLK='1') | (TABWM='1') then do;
    if (TABWOM = '1') then do;
      cbo_fram = 'W';
      output file;
    end;
    if (TABBLK = '1') then do;
      cbo_fram = 'B';
      output file;
    end;
    delete;
  end;
  otherwise delete;
end ;

```

Appendix F. 1982 and 1987 Owner and Firm Database Dictionaries.

Dataset	Pages
1. 1982 CBO Owner File	70-73
2. 1987 CBO Owner File	74-78
3. 1982 CBO Firm File	79-80
4. 1987 CBO Firm File	81-82



CONTENTS PROCEDURE

Data Set Name:	CBO82.CBO_OWN	Observations:	126248
Member Type:	DATA	Variables:	122
Engine:	V607	Indexes:	0
Created:	7:13 Wed, Mar 18, 1992	Observation Length:	227
Last Modified:	7:34 Wed, Mar 18, 1992	Deleted Observations:	0
Data Set Type:		Compressed:	YES
		Reuse Space:	NO
Label:	1982 Characteristics Owner File		

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	2631
File Name:	/usr/optical/cbo82/cbo_own.ssd01
Inode Number:	770
Access Permission:	r--r--r--
Owner Name:	root
File Size (bytes):	21561344

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
23	APR	Num	8	63	1982 Firm Annual Payroll
9	CBOID	Num	8	24	Owner Identification Code
10	CFN	Char	10	32	Firm Identification Code
11	CK_DIG	Char	1	42	
89	COVER	Char	1	184	
4	CTY	Char	3	7	County FIPS Code
24	EMP	Num	8	71	1982 Firm Employment
13	EMPLR	Char	1	44	Employer(2)-Nonemployer(1)
14	EMPSZ	Char	1	45	Employment Size class
88	FADM	Char	2	182	Firm Race Code (Black)
16	FBLK	Char	1	47	Firm Black Code
15	FETH	Char	1	46	Firm Ethnicity Code (Hispanic)
17	FRAC	Char	2	48	Firm Race Code (Other)
18	FSEX	Char	1	50	Firm Gender Code
26	I1	Char	1	87	1986 owner of same 1982 business
29	I3	Char	1	90	Owner Age
30	I4	Char	1	91	Marital Status
31	I5	Char	1	92	Gender
122	I7	Num	8	219	Education
41	I8	Char	1	103	Business Education
46	I11	Char	1	108	Business Ownership Experience
47	I12	Char	1	109	Business in Private Residence
48	I13	Char	2	110	Work in Business (Hours per Week)
49	I14	Char	1	112	Income from Business (per cent)
50	I15	Char	1	113	Year Acquire Business

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
51	I16	Char	1	114	Original Business Founder
52	I17	Char	1	115	Year Business Established
53	I18	Char	1	116	How Acquire Business
70	I21	Char	2	134	Firm Net Income Before Taxes
71	I22	Char	1	136	Female Labor Force Participation (per ce
72	I23	Char	1	137	Non-Hispanic White Labor Force Participa
73	I24	Char	1	138	Customer Base White (per cent)
74	I25	Char	1	139	Exports (per cent of Sales)
62	I201	Char	1	126	Keyed Data: No Equity
63	I202	Char	1	127	Keyed Data: Source of Equity
64	I203	Char	1	128	Keyed Data: Source of Equity
65	I204	Char	1	129	Keyed Data: Source of Equity
66	I205	Char	1	130	Keyed Data: Source of Equity
67	I206	Char	1	131	Keyed Data: Source of Equity
68	I207	Char	1	132	Keyed Data: Source of Equity
69	I208	Char	1	133	Keyed Data: Source of Equity
44	I10A	Char	1	106	Employment Experience
45	I10B	Char	1	107	Managerial Experience
54	I19A	Char	1	117	Business Startup Capital
55	I19B	Char	2	118	Business Startup Debt
56	I19C1	Char	1	120	Keyed Data: Source of Debt
57	I19C2	Char	1	121	Keyed Data: Source of Debt
58	I19C3	Char	1	122	Keyed Data: Source of Debt
59	I19C4	Char	1	123	Keyed Data: Source of Debt
60	I19C5	Char	1	124	Keyed Data: Source of Debt
61	I19C6	Char	1	125	Keyed Data: Source of Debt
105	I19CA0	Char	1	201	1982 CBO All Response
106	I19CA00	Char	1	202	Source of Debt: Item Nonresponse
99	I19CA1	Char	1	195	Family Source of Debt
100	I19CA2	Char	1	196	Friends Source of Debt
101	I19CA3	Char	1	197	Government Source of Debt
102	I19CA4	Char	1	198	Former Owner Source of Debt
103	I19CA5	Char	1	199	Bank Source of Debt
104	I19CA6	Char	1	200	Other Source of Debt
115	I20A0	Char	1	211	1982 CBO All Response
116	I20A00	Char	1	212	Source of Equity: Item Nonresponse
107	I20A1	Char	1	203	No Equity
108	I20A2	Char	1	204	Family Source of Equity
109	I20A3	Char	1	205	Friends Source of Equity
110	I20A4	Char	1	206	Government Source of Equity
111	I20A5	Char	1	207	Venture Source of Equity
112	I20A6	Char	1	208	Former Owner Source of Equity
113	I20A7	Char	1	209	Bank Source of Equity
114	I20A8	Char	1	210	Other Source of Equity
27	I2A	Char	1	88	1982 Firm Operating in 1986
28	I2B	Char	1	89	Why 1982 Firm Not Operating

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
32	I6A	Char	1	93	Veteran Status
33	I6B1	Char	1	94	Veteran: Keyed Data
34	I6B2	Char	1	95	Veteran: Keyed Data
35	I6B3	Char	1	96	Veteran: Keyed Data
36	I6B4	Char	1	97	Veteran: Keyed Data
37	I6B5	Char	1	98	Veteran: Keyed Data
38	I6B6	Char	1	99	Veteran: Keyed Datay
97	I6BA0	Char	1	193	1982 CBO All Response
98	I6BA00	Char	1	194	Veteran: Item Nonresponse
91	I6BA1	Char	1	187	Veteran: Before 25 July, 1947
92	I6BA2	Char	1	188	Veteran: 26 July, 1947 - 26 June, 1950
93	I6BA3	Char	1	189	Veteran: 27 June, 1950 - 31 January, 195
94	I6BA4	Char	1	190	Veteran: 1 February, 1955 - 4 August, 19
95	I6BA5	Char	1	191	Veteran: 5 August, 1964 - 7 May, 1975
96	I6BA6	Char	1	192	Veteran: After 7 May, 1975
39	I7A	Char	2	100	Education: High School or Less
40	I7B	Char	1	102	Education: One Year College or More
42	I9A	Char	1	104	Family Business Experience
43	I9B	Char	1	105	Work with Family Business Experience
82	IND	Char	1	176	Major Industry Grouping
8	LFO	Char	1	23	Legal Form of Organization
76	NO_MAI	Char	1	141	
120	O22	Char	1	217	Original:Female Labor Force Participatio
121	O23	Char	1	218	Original:Non-Hispanic White Labor Force
119	O19B	Char	2	215	Original:Business Startup Debt
117	O2B	Char	1	213	Original:Why 1982 Firm Not Operating
118	O9B	Char	1	214	Original:Work with Family Business Exper
20	OETH	Char	1	53	Owner Ethnicity Code (Hispanic)
19	ORAC	Char	2	51	Owner Race Code (Other)
21	OSEX	Char	1	54	Owner Gender Code
1	PANEL	Char	1	0	Major 1982 CBO Ethnicity Grouping
5	PLACE	Char	4	10	1982 Economic Censuses Place Code
80	RDGRP	Char	2	166	Random Group for Variance Calculation
22	REC	Num	8	55	1982 Firm Receipts
12	RECSZ	Char	1	43	Receipt Size Class
75	RESP	Char	1	140	Owner Response Type
2	SIC	Char	4	1	Four Digit Standard Industrial Classific
90	SIC2	Char	2	185	Two Digit Standard Industrial Classifica
6	SMSA	Char	4	14	1982 Standard Metropolitan Statistical A
25	SSN	Num	8	79	
3	ST	Char	2	5	State FIPS Code
85	TABBLK	Char	1	179	Owner Duplication Flag: Black
83	TABHIS	Char	1	177	Owner Duplication Flag: Hispanic
87	TABNM	Char	1	181	Owner Duplication Flag: Nonminority Male
84	TABOTH	Char	1	178	Owner Duplication Flag: Other
86	TABWOM	Char	1	180	Owner Duplication Flag: Women

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
77	WGTCBO	Num	8	142	Unadjusted Firm/Owner Weight
79	WGTFRM	Num	8	158	Nonresponse Adjusted Firm Weight
78	WGTOWN	Num	8	150	Nonresponse Adjusted Owner Weight
81	WTCBO2	Num	8	168	
7	ZIP	Char	5	18	

CONTENTS PROCEDURE

Data Set Name:	CBO87.CBO_OWN	Observations:	127640
Member Type:	DATA	Variables:	130
Engine:	V607	Indexes:	0
Created:	7:00 Thursday, Mar 19, 1992	Observation Length:	277
Last Modified:	7:08 Thursday, Mar 19, 1992	Deleted Observations:	0
Data Set Type:		Compressed:	YES
		Reuse Space:	NO
Label:	1987 CBO Owner File (		

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	2643
File Name:	/usr/optical/cbo87/cbo_own.ssd01
Inode Number:	392
Access Permission:	r--r--r--
Owner Name:	root
File Size (bytes):	21659648

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Format	Informat	Label
43	ACAP	Num	8	107	11.	11.	1987 Firm Annual Payroll
42	ACEMP	Num	8	99	6.	6.	1987 Firm Employment
44	ACSR1	Num	8	115	11.	11.	1987 Firm Receipts
29	CBOID	Char	10	38	\$10.	\$10.	Owner Identification Code
59	CBO_FRAM	Char	1	142	\$1.	\$1.	Major 1987 CBO Ethnicity Grouping
34	CFN	Char	10	67	\$10.	\$10.	Firm Identification Code
39	CTYGEO	Char	3	91	\$3.	\$3.	County FIPS Code
56	EMPLYR	Char	1	138	\$1.	\$1.	Employer(2)-Nonacemployer(1)
54	EMPSZ	Char	1	136	\$1.	\$1.	Employment Size class
50	FERS_API	Char	2	128	\$2.	\$2.	Firm Race Code (Other)
47	FERS_BLA	Char	1	125	\$1.	\$1.	Firm Black Code
48	FERS_HIS	Char	1	126	\$1.	\$1.	Firm Ethnicity Code (Hispanic)
49	FERS_NA	Char	1	127	\$1.	\$1.	Firm Race Code (Other)
51	FERS_SEX	Char	1	130	\$1.	\$1.	Firm Gender Code
33	FRMWGT	Num	8	59	12.4	12.4	Nonresponse Adjusted Firm Weight
57	HASOURCE	Char	1	139	\$1.	\$1.	HASOURCE
61	I1	Char	1	151	\$1.	\$1.	Age as of December 31, 1987
62	I2	Char	1	152	\$1.	\$1.	Marital Status December 31, 1987
63	I3	Char	1	153	\$1.	\$1.	Country Birth (Other than U.S.)
67	I5	Char	1	157	\$1.	\$1.	Highest Level of Education

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Format	Informat	Label
68	I6	Char	1	158	\$1.	\$1.	Post High School Concentration
78	I11	Char	1	169	\$1.	\$1.	Own Previous Business
79	I12	Char	1	170	\$1.	\$1.	87 Business Operated from Home
80	I13	Char	5	171	\$5.	\$5.	Business ZIP Code
83	I15	Char	1	179	\$1.	\$1.	How Acquire Business Ownership
84	I16	Char	1	180	\$1.	\$1.	Ownership Tenure as of Dec. 31,1987
106	I20	Char	2	204	\$2.	\$2.	Business Net Income in 1987
107	I21	Char	1	206	\$1.	\$1.	%Employees Female
108	I22	Char	1	207	\$1.	\$1.	%Employees Non-Minority
109	I23	Char	1	208	\$1.	\$1.	%Customers Non-Minority
110	I24	Char	1	209	\$1.	\$1.	%Sales Exports
111	I25	Char	1	210	\$1.	\$1.	Business a Franchise
129	I28	Char	1	270	\$1.	\$1.	Disability Precludes Employment
76	I10A	Char	2	166	\$2.	\$2.	1987 Household Income
77	I10B	Char	1	168	\$1.	\$1.	% Household Income from Business
81	I14A	Char	1	176	\$1.	\$1.	Months in 87 Managing/Working Business
82	I14B	Char	2	177	\$2.	\$2.	Hrs/wk in 87 Managing/Working Business
85	I17A	Char	1	181	\$1.	\$1.	Capital at Startup
86	I17B	Char	1	182	\$1.	\$1.	% Capital Borrowed
87	I17C1	Char	1	183	\$1.	\$1.	Spouse Source of Debt
88	I17C2	Char	1	184	\$1.	\$1.	Family Source of Debt
89	I17C3	Char	1	185	\$1.	\$1.	Friends Source of Debt
90	I17C4	Char	1	186	\$1.	\$1.	Personal Credit Card Source of Debt
91	I17C5	Char	1	187	\$1.	\$1.	Refinanced Home Source of Debt
92	I17C6	Char	1	188	\$1.	\$1.	Former Owner Source of Debt
93	I17C7	Char	1	189	\$1.	\$1.	Bank Loan Source of Debt
94	I17C8	Char	1	190	\$1.	\$1.	Other Loan Source of Debt
95	I17C9	Char	1	191	\$1.	\$1.	Government Source of Debt
96	I17C10	Char	2	192	\$2.	\$2.	Other Source of Debt
97	I18A1	Char	1	194	\$1.	\$1.	No Equity
98	I18A2	Char	1	195	\$1.	\$1.	Family Source of Equity
99	I18A3	Char	1	196	\$1.	\$1.	Friends Source of Equity
100	I18A4	Char	1	197	\$1.	\$1.	Partners/Investors Source of Equity
101	I18A5	Char	1	198	\$1.	\$1.	Former Owner Source of Equity
102	I18A6	Char	1	199	\$1.	\$1.	Self Source of Equity

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Format	Informat	Label
103	I18A7	Char	1	200	\$1.	\$1.	Other Source of Equity
104	I19A	Char	1	201	\$1.	\$1.	Business Assets in 87
105	I19B	Char	2	202	\$2.	\$2.	Business Liabilities in 87
112	I26A	Num	8	211	6.	6.	%Sales to Federal Government
113	I26B	Num	8	219	6.	6.	%Sales to State Government
114	I26C	Num	8	227	6.	6.	%Sales to Local Government
115	I26D	Num	8	235	6.	6.	%Sales to Other Business
116	I26E	Num	8	243	6.	6.	%Sales to Individuals
117	I26F	Num	8	251	6.	6.	%Sales to All Others
118	I27A1	Char	1	259	\$1.	\$1.	No Assistance in Business Startup
119	I27A2	Char	1	260	\$1.	\$1.	Federal Assistance in Business Startup
120	I27A3	Char	1	261	\$1.	\$1.	State/Local Assistance in Business Start
121	I27A4	Char	1	262	\$1.	\$1.	College/University Assistance in Business
122	I27A5	Char	1	263	\$1.	\$1.	Other Business Assistance in Business St
123	I27A6	Char	1	264	\$1.	\$1.	Other Assistance in Business Startup
124	I27B1	Char	1	265	\$1.	\$1.	Management/Technical Assistance
125	I27B2	Char	1	266	\$1.	\$1.	Contract Assistance
126	I27B3	Char	1	267	\$1.	\$1.	Loadn Assistance
127	I27B4	Char	1	268	\$1.	\$1.	Bonding Assistance
128	I27B5	Char	1	269	\$1.	\$1.	Other Assistance
64	I4A	Char	1	154	\$1.	\$1.	Veteran Status
65	I4B	Char	1	155	\$1.	\$1.	Vietnam Veteran
66	I4C	Char	1	156	\$1.	\$1.	Disabled Veteran
69	I7A	Char	1	159	\$1.	\$1.	Still Own 1987 Business
70	I7B	Char	1	160	\$1.	\$1.	Business Operating Under Different Owner
71	I7C	Char	1	161	\$1.	\$1.	Change in Business Ownership
72	I8A	Char	1	162	\$1.	\$1.	Relative Own Business
73	I8B	Char	1	163	\$1.	\$1.	Work for Relatives Business
74	I9A	Char	1	164	\$1.	\$1.	Work Experience (yrs) Prior to 87 Busine
75	I9B	Char	1	165	\$1.	\$1.	Prior Work Experience
41	IRS_FORM	Char	1	98	\$1.	\$1.	IRS_FORM
36	LFO	Char	1	83	\$1.	\$1.	Legal Form of Organization
52	MSA	Char	4	131	\$4.	\$4.	1987 Standard Metropolitan Statistical A
7	O14B	Char	1	6			Original:Hrs/wk in 87 Managing/Working B
8	O17B	Char	1	7			Original:% Capital Borrowed

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Format	Informat	Label
-----							
19	O17C1	Char	2	18			Original:Spouse Source of Debt
20	O17C2	Char	2	20			Original:Family Source of Debt
21	O17C3	Char	2	22			Original:Friends Source of Debt
22	O17C4	Char	2	24			Original:Personal Credit Card Source of
23	O17C5	Char	2	26			Original:Refinanced Home Source of Debt
24	O17C6	Char	2	28			Original:Former Owner Source of Debt
25	O17C7	Char	2	30			Original:Bank Loan Source of Debt
26	O17C8	Char	2	32			Original:Other Loan Source of Debt
27	O17C9	Char	2	34			Original:Government Source of Debt
28	O17C10	Char	2	36			Original:Other Source of Debt
9	O27B1	Char	1	8			Original:Management/Technical Assistance
10	O27B2	Char	1	9			Original:Contract Assistance
11	O27B3	Char	1	10			Original:Loadn Assistance
12	O27B4	Char	1	11			Original:Bonding Assistance
13	O27B5	Char	1	12			Original:Other Assistance
1	O4B	Char	1	0			Original: Vietnam Veteran
2	O4C	Char	1	1			Original:Disabled Veteran
3	O7B	Char	1	2			Original:Business Operating Under Differ
4	O7C	Char	1	3			Original:Change in Business Ownership
5	O8B	Char	1	4			Original:Work for Relatives Business
6	O9B	Char	1	5			Original:Prior Work Experience
32	OWNWGT	Num	8	51	12.4	12.4	Nonresponse Adjusted Owner Weight
53	PDIV	Char	1	135	\$1.	\$1.	Major Industry Grouping
40	PLGEO	Char	4	94	\$4.	\$4.	1987 Economic Censuses Place Code
55	RECSZ	Char	1	137	\$1.	\$1.	Receipt Size Class
31	REPORTED	Char	1	50	\$1.	\$1.	Owner Response Type
30	RG	Char	2	48	\$2.	\$2.	Random Group for Variance Calculation
35	SIC	Char	6	77	\$6.	\$6.	( 1982)Four Digit Standard Industrial Cl



## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Format	Informat	Label
130	SIC2	Char	6	271			Two Digit Standard Industrial Classifica
58	SMOBEOWN	Char	2	140	\$2.	\$2.	SMOBEOWN
45	SSA_RACE	Char	1	123	\$1.	\$1.	Owner Race Code (Black,Other)
46	SSA_SEX	Char	1	124	\$1.	\$1.	Owner Gender Code
38	STGEO	Char	2	89	\$2.	\$2.	State FIPS Code
14	TABBLK	Char	1	13			Owner Duplication Flag: Black
15	TABHIS	Char	1	14			Owner Duplication Flag: Hispanic
16	TABNM	Char	1	15			Owner Duplication Flag: Nonminority Male
17	TABOTH	Char	1	16			Owner Duplication Flag: Other
18	TABWOM	Char	1	17			Owner Duplication Flag: Women
60	WGTTOT	Num	8	143	11.	11.	Unadjusted Firm/Owner Weight
37	ZIP5	Char	5	84	\$5.	\$5.	ZIP5

CONTENTS PROCEDURE

Data Set Name:	CBO82.CBO_FIRM	Observations:	114371
Member Type:	DATA	Variables:	37
Engine:	V607	Indexes:	0
Created:	11:22 Thu, Mar 19, 1992	Observation Length:	150
Last Modified:	11:24 Thu, Mar 19, 1992	Deleted Observations:	0
Data Set Type:		Compressed:	YES
		Reuse Space:	NO
Label:	1982 CBO Firm File		

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	1490
File Name:	/usr/optical/cbo82/cbo_firm.ssd01
Inode Number:	776
Access Permission:	r--r--r--
Owner Name:	aln
File Size (bytes):	12214272

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
19	APR	Num	8	58	1982 Firm Annual Payroll
9	CBOID	Num	8	24	Owner Identification Code
10	CFN	Char	10	32	Firm Identification Code
4	CTY	Char	3	7	County FIPS Code
20	EMP	Num	8	66	1982 Firm Employment
12	EMPLR	Char	1	43	Employer(2)-Nonemployer(1)
13	EMPSZ	Char	1	44	Employment Size class
30	FADM	Char	2	98	Firm Race Code (Black)
15	FBLK	Char	1	46	Firm Black Code
14	FETH	Char	1	45	Firm Ethnicity Code (Hispanic)
16	FRAC	Char	2	47	Firm Race Code (Other)
37	FRESP	Num	8	142	firm response type
17	FSEX	Char	1	49	Firm Gender Code
24	IND	Char	1	92	Major Industry Grouping
34	IRESPON	Num	8	118	number of imputed owners per firm
8	LFO	Char	1	23	Legal Form of Organization
35	NORESPON	Num	8	126	number of nonresponding owners per firm
1	PANEL	Char	1	0	Major 1982 CBO Ethnicity Grouping
5	PLACE	Char	4	10	1982 Economic Censuses Place Code
23	RDGRP	Char	2	90	Random Group for Variance Calculation
18	REC	Num	8	50	1982 Firm Receipts
11	RECSZ	Char	1	42	Receipt Size Class
32	RESPNO	Num	8	102	number of owners per firm
33	RESPON	Num	8	110	number of response owners per firm
2	SIC	Char	4	1	Four Digit Standard Industrial Classific

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
31	SIC2	Char	2	100	Two Digit Standard Industrial Classifica
6	SMSA	Char	4	14	1982 Standard Metropolitan Statistical A
3	ST	Char	2	5	State FIPS Code
27	TABBLK	Char	1	95	Owner Duplication Flag: Black
25	TABHIS	Char	1	93	Owner Duplication Flag: Hispanic
29	TABNM	Char	1	97	Owner Duplication Flag: Nonminority Male
26	TABOTH	Char	1	94	Owner Duplication Flag: Other
28	TABWOM	Char	1	96	Owner Duplication Flag: Women
21	WGTCBO	Num	8	74	Unadjusted Firm/Owner Weight
22	WGTFRM	Num	8	82	Nonresponse Adjusted Firm Weight
36	WGTOWN	Num	8	134	
7	ZIP	Char	5	18	

CONTENTS PROCEDURE

Data Set Name:	CBO87.CBO_FIRM	Observations:	90213
Member Type:	DATA	Variables:	42
Engine:	V607	Indexes:	0
Created:	10:21 Thursday, Mar 19, 1992	Observation Length:	156
Last Modified:	10:23 Thursday, Mar 19, 1992	Deleted Observations:	0
Data Set Type:		Compressed:	YES
		Reuse Space:	NO
Label:	1987 CBO Firm File		

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	1380
File Name:	/usr/optical/cbo87/cbo_firm.ssd01
Inode Number:	393
Access Permission:	r--r--r--
Owner Name:	aln
File Size (bytes):	11313152

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Format	Informat	Label
19	ACAP	Num	8	73	11.	11.	1987 Firm Annual Payroll
18	ACEMP	Num	8	65	6.	6.	1987 Firm Employment
20	ACSR1	Num	8	81	11.	11.	1987 Firm Receipts
6	CBOID	Char	10	5	\$10.	\$10.	Owner Identification Code
35	CBO_FRAM	Char	1	108	\$1.	\$1.	Major 1987 CBO Ethnicity Grouping
10	CFN	Char	10	33	\$10.	\$10.	Firm Identification Code
15	CTYGEO	Char	3	57	\$3.	\$3.	County FIPS Code
32	EMPLYR	Char	1	104	\$1.	\$1.	Employer(2)-Nonacemployer(1)
30	EMPSZ	Char	1	102	\$1.	\$1.	Employment Size class
26	FERS_API	Char	2	94	\$2.	\$2.	Firm Race Code (Other)
23	FERS_BLA	Char	1	91	\$1.	\$1.	Firm Black Code
24	FERS_HIS	Char	1	92	\$1.	\$1.	Firm Ethnicity Code (Hispanic)
25	FERS_NA	Char	1	93	\$1.	\$1.	Firm Race Code (Other)
27	FERS_SEX	Char	1	96	\$1.	\$1.	Firm Gender Code
41	FRESP	Num	8	147			firm response type
9	FRMWGT	Num	8	25	12.4	12.4	Nonresponse Adjusted Firm Weight
33	HASOURCE	Char	1	105	\$1.	\$1.	HASOURCE
17	IRS_FORM	Char	1	64	\$1.	\$1.	IRS_FORM
12	LFO	Char	1	49	\$1.	\$1.	Legal Form of Organization
28	MSA	Char	4	97	\$4.	\$4.	1987 Standard Metropolitan Statistical A
40	NORESPON	Num	8	139			number of nonresponding owners per firm

## CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Format	Informat	Label
8	OWNWGT	Num	8	17	12.4	12.4	Nonresponse Adjusted Owner Weight
29	PDIV	Char	1	101	\$1.	\$1.	Major Industry Grouping
16	PLGEO	Char	4	60	\$4.	\$4.	1987 Economic Censuses Place Code
31	RECSZ	Char	1	103	\$1.	\$1.	Receipt Size Class
42	REPORTED	Char	1	155	\$1.	\$1.	Owner Response Type
38	RESPNO	Num	8	123			number of owners per firm
39	RESPON	Num	8	131			number of response owners per firm
7	RG	Char	2	15	\$2.	\$2.	Random Group for Variance Calculation
11	SIC	Char	6	43	\$6.	\$6.	( 1982)Four Digit Standard Industrial Cl
37	SIC2	Char	6	117			Two Digit Standard Industrial Classifica
34	SMOBEOWN	Char	2	106	\$2.	\$2.	SMOBEOWN
21	SSA_RACE	Char	1	89	\$1.	\$1.	Owner Race Code (Black,Other)
22	SSA_SEX	Char	1	90	\$1.	\$1.	Owner Gender Code
14	STGEO	Char	2	55	\$2.	\$2.	State FIPS Code
1	TABBLK	Char	1	0			Owner Duplication Flag: Black
2	TABHIS	Char	1	1			Owner Duplication Flag: Hispanic
3	TABNM	Char	1	2			Owner Duplication Flag: Nonminority Male
4	TABOTH	Char	1	3			Owner Duplication Flag: Other
5	TABWOM	Char	1	4			Owner Duplication Flag: Women
36	WGTTOT	Num	8	109	11.	11.	Unadjusted Firm/Owner Weight
13	ZIP5	Char	5	50	\$5.	\$5.	ZIP5